

**SANITATION, INC. LANDFILL  
LEWISTOWN, MONTANA  
License #291  
JUNE 2012 GROUNDWATER SAMPLING REPORT**

Prepared for:  
**Barry Damschen Consulting, LLC**

Prepared by:  
**Hydrometrics, Inc.**  
Consulting Scientists & Engineers   
3020 Bozeman Avenue  
Helena, MT 59601

September 2012

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 **SEP 24 2012**

DEPT. OF ENVIRO. QUALITY  
WASTE & UNDERGROUND TANK  
MANAGEMENT BUREAU



# BARRY DAMSCHEN CONSULTING, LLC

Engineering • Solid Waste Management • Grant Administration

September 18, 2012

Mr. Martin Van Oort  
Solid Waste Program  
Department of Environmental Quality  
P. O. Box 200901  
Helena, MT. 59620-0901

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Waste & Underground  
Tank Management Bureau

Dear Martin,

Please find enclosed our copy of the groundwater results for the Spring 2012 sampling event at the Sanitation Inc. landfill. The samples were collected on June 25, 2012.

As indicated in the attached report, there does not appear to be any significant changes in the quality of the groundwater from the last sampling event. There were a few VOC parameters detected at SMW-4 for the first time but they were low level estimated (J) values.

If you have any questions, please do not hesitate to call me.

Very truly yours,  
**BARRY DAMSCHEN CONSULTING, LLC**

Barry E. Damschen, P. E.  
Project Manager

Enclosure

Cc: Sanitation Inc.



# Hydrometrics, Inc.

consulting scientists and engineers

3020 Bozeman Avenue  
Helena, MT 59601  
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Fax: (406) 443-4155  
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September 21, 2012

Mr. Barry Damschen, P.E.  
Barry Damschen Consulting, LLC  
P.O. Box 7599  
Helena, MT 59604

**RE:** June 2012 Groundwater Monitoring Results  
Closed Sanitation, Inc. Landfill, Lewistown, MT (License #291)

Dear Barry,

Hydrometrics, under contract to Barry Damschen Consulting, LLC, has prepared this letter report to transmit the results of the June 2012 groundwater monitoring at the Closed Sanitation, Inc. Landfill in Lewistown, Montana. Sampling activities were conducted on June 25, 2012.

## Groundwater Flow Results

Monitoring locations for the Sanitation, Inc. landfill are shown on Figure 1. Static water levels were collected at monitoring wells SIMW-2, SIMW-3, and SIMW-4, and at piezometer SIP-1 during the June 2012 monitoring event; no measurement was collected at piezometer SIP-2. The general shallow groundwater flow direction at the site is to the north and west, with water level depths ranging from about 30 to 50 feet below the wellhead measuring point (Table 1). All wells showed water level increases from July 2011 to June 2012, with elevation increases ranging from 0.10 feet at SIMW-2 to 3.61 feet at SIMW-4. As observed during previous monitoring events, groundwater level fluctuations were largest at well SIMW-4, likely due to varying influence from the nearby detention pond (Figure 1).

The hydraulic gradient at the site appears to increase with proximity to the small draw to the north. An estimated average gradient of 0.15 was calculated for the site, based on the distance between the 4090-ft and 4040-ft groundwater elevation contours with a flow direction toward SIMW-4 (Figure 1). The groundwater seepage velocity can be estimated with previously determined (Entranco, 2002) values for aquifer porosity (estimated at 0.35), and hydraulic conductivity (9.2 ft/day), using the formula  $V_s = KI/n_e$  where  $V_s$  = seepage velocity (ft/day);  $K$  = hydraulic conductivity (ft/day);  $I$  = hydraulic gradient (dimensionless); and  $n_e$  = porosity (dimensionless).

Using the values cited above, the estimated groundwater seepage velocity near well SIMW-4 for June 2012 is 3.9 ft/day or about 1420 ft/year.

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### **Groundwater Quality Results**

Water quality samples were collected from wells SIMW-2, SIMW-3, and SIMW-4 by bailing. Well SIMW-1 was previously removed from the groundwater monitoring program, so no sample or water level was collected at this well. Quality control (QC) samples included a field duplicate (collected at SIMW-3), a trip blank, and standard internal laboratory QC samples. Samples were submitted to Energy Laboratories in Helena, Montana for analysis of Solid Waste Table 1 inorganic parameters and volatile organic compounds (VOCs). Field sampling notes and laboratory analytical reports are in Attachment 1.

Trend plots were compiled for selected parameters and are in Attachment 1. Statistical Reports are located on the compact disc in Attachment 2 and field sampling notes and laboratory analytical reports are in Attachment 3.

### **Quality Control Results**

The trip blank showed one parameter (methylene chloride) reported as “present but less than the reporting limit” (J-qualified), at a concentration of 0.36 µg/L. All other parameters in the trip blank were reported as not detected. Methylene chloride is occasionally present in lab or field blanks, partially due to its use as a solvent or reagent in laboratory settings. Methylene chloride was not reported in any of the groundwater samples during this monitoring event, so the low-level presence of methylene chloride in the trip blank is not significant in terms of data quality impacts.

The duplicate sample pair showed very good agreement for inorganic parameters, compared with the control limits presented in EPA guidance (EPA, 2004). Suggested duplicate sample control limits for inorganic parameters are <20% relative percent difference (RPD) for duplicate pairs with results  $\geq$  five times the reporting limit (RL), or  $\pm$  the reporting limit for duplicate pairs with one or both results  $\leq$  five times the reporting limit. The June 2012 inorganic groundwater data for the closed Sanitation, Inc. Landfill sample-duplicate pair showed RPDs ranging from 0.0% to 33.9%, with an average of 5.0%. Dissolved selenium and zinc results agreed to within the  $\pm$  RL control limit. The dissolved iron concentrations (0.71 mg/L in the original sample, 1.0 mg/L in the duplicate sample) exceeded duplicate control limits. EPA guidance for organic data review (EPA, 1999) does not list suggested control limits for duplicate samples. However, the RPDs for J-qualified values of dichlorodifluoromethane (0.0%), 1,1,1-trichloroethane (4.7%), and trichlorofluoromethane (3.2%) in the June 2012 sample-duplicate pair showed good agreement.

Note that for sample-duplicate pairs, the higher of the two values reported is retained in the database and used for statistical testing purposes (or the lower of the two values for pH).

### **Statistical Testing Results**

Intrawell prediction limits were used for statistical testing of the June 2012 groundwater data, since none of the three wells currently monitored can be considered upgradient of the waste fill areas. Baseline data for each parameter at each well included all appropriate data prior to the





current sampling event. 'Historical' outliers were identified and removed from the baseline data set as described in the June 2009 statistical report (Hydrometrics, 2010), and as recommended in a subsequent letter from MDEQ (MDEQ, 2010). In addition, the following results exceeding prediction limits for June 2009, June 2010, and July 2011 were removed from the database for distribution and prediction limit testing:

| Well   | Date      | Parameter    |
|--------|-----------|--------------|
| SIMW-2 | 6/14/2010 | conductivity |
| SIMW-2 | 6/14/2010 | iron         |
| SIMW-3 | 6/22/2009 | sulfate      |
| SIMW-3 | 6/14/2010 | conductivity |
| SIMW-3 | 6/14/2010 | sulfate      |
| SIMW-4 | 6/14/2010 | pH           |

Note that these results are shown on the trend plots in Attachment 1 (and are included for trend testing if necessary). Outliers that were removed for purposes of intrawell statistical testing are tabulated in Attachment 2.

The Shapiro-Wilks Test of Normality was used to determine the distribution of the data (after removal of outliers) for each parameter at each well. June 2012 results were then compared with parametric or nonparametric prediction limits, based on the results of the normality test. Tests for trend (Mann-Kendall or Sen's Slope) were conducted for any parameters showing a prediction limit exceedance. The intrawell prediction limit results are summarized in Table 2, and detailed statistical reports are in Attachment 2.

#### Inorganic Parameters

In general, inorganic parameter concentrations for June 2012 were similar to values observed during recent monitoring events. Four prediction limit exceedances were noted, for conductivity at wells SIMW-2 and SIMW-3, and for sulfate and iron at well SIMW-3 (Table 2). Statistically significant increasing trends were obtained for conductivity at both SIMW-2 and SIMW-3, and for sulfate at SIMW-3. The trend plots in Attachment 1 show slightly increasing trends for conductivity at SIMW-2 and SIMW-3 over about the last seven years, while sulfate concentrations at SIMW-3 do not show a strong visible trend. Sulfate concentrations at SIMW-2 and SIMW-4 actually appear to have decreased over the last five to six years (Attachment 1).

Groundwater pH in the Sanitation, Inc. monitoring wells ranged from 6.9 to 7.1 in June 2012, and SC values ranged from 1300  $\mu$ mhos/cm at SIMW-3 to 2640  $\mu$ mhos/cm at SIMW-4. Elevated nitrate + nitrite concentrations persisted at SIMW-3 (11.5 mg/L, above the DEQ-7 groundwater standard of 10 mg/L), with lower concentrations reported at SIMW-2 (2.55 mg/L) and SIMW-4 (0.36 mg/L). Detectable metals concentrations in June 2012 groundwater samples included zinc (0.02 mg/L) at well SIMW-2, iron (1.0 mg/L), selenium (0.023 mg/L), and zinc (0.01 mg/L) at well SIMW-3, and nickel (0.05 mg/L) and zinc (0.03 mg/L) at well SIMW-4 (Table 2). Concentrations of these inorganic parameters were consistent with previous results observed at the Sanitation, Inc. monitoring wells.





Organic Parameters

Similar to previous monitoring events, numerous low-level VOC parameters were reported in the June 2012 samples for each of the three sampled wells, qualified 'J' as present, but below the laboratory reporting limit, as follows:

| Site   | 6/12 VOCs Reported (µg/L)        |
|--------|----------------------------------|
| SIMW-2 | dichlorodifluoromethane (0.20 J) |
|        | 1,1-dichloroethane (0.16 J)      |
|        | tetrachloroethene (0.26 J)       |
|        | 1,1,1-trichloroethane (0.79 J)   |
|        | trichlorofluoromethane (0.24 J)  |
| SIMW-3 | dichlorodifluoromethane (0.17 J) |
|        | 1,1,1-trichloroethane (0.44 J)   |
|        | trichlorofluoromethane (0.94 J)  |
| SIMW-4 | acetone (7.5 J)                  |
|        | benzene (0.54 J)                 |
|        | chlorobenzene (0.78 J)           |
|        | chloroethane (0.73 J)            |
|        | 1,4-dichlorobenzene (0.60 J)     |
|        | 1,1-dichloroethane (0.36 J)      |
|        | cis-1,2-dichloroethene (0.14 J)  |
|        | vinyl chloride (0.21 J)          |
|        | o-xylene (0.31 J)                |
|        | total xylenes (0.31 J)           |

Mann-Kendall trend tests were conducted for each of the reported VOC parameters. Five parameters (1,1,1-trichloroethane at SIMW-2 and SIMW-3, trichlorofluoromethane at SIMW-3, benzene and 1,1-dichloroethane at SIMW-4) yielded statistically significant increasing trends (Table 2). Inspection of the trend plots in Attachment 1 shows similar patterns for all of these VOCs: periods of sporadic J-qualified detections interspersed with non-detectable values. In fact, this pattern is also observed for those parameters that do not show statistically significant Mann-Kendall results (such as acetone and dichlorodifluoromethane). It appears that the statistically significant increasing trends for VOCs noted in this report are due in large part to the replacement of below detect values (<1 µg/L) with zero prior to trend testing.

Several VOC parameters were reported for the first time in June 2012, including chlorobenzene, tetrachloroethene, and vinyl chloride. The J-qualified (estimated) vinyl chloride concentration of 0.21 µg/L at SIMW-4 exceeds the DEQ-7 groundwater human health standard of 0.2 µg/L. Additional data collection will be required to determine the persistence of these constituents, and any concentration trends.



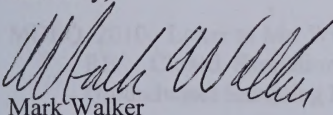


### Summary

Groundwater elevation data for the June 2012 groundwater-monitoring event at the Closed Sanitation, Inc. Landfill were consistent with historic results, indicating flow to the north and west and an approximate seepage velocity of 3.9 ft/day. Groundwater samples collected in June 2012 also showed results consistent with previous data. Intrawell prediction limit exceedances were noted for four inorganic parameters, with slight increasing trends noted for conductivity at SIMW-2 and SIMW-3, and sulfate at SIMW-3. Low (J-qualified) VOC concentrations were reported at all three monitoring wells, along with increasing trend test results for several of these parameters. However, as shown on the trend plots, detected VOC parameters show similar patterns of sporadic J-qualified values interspersed with below detect values; increasing trend test results are largely a function of replacement of nondetect values with zero for purposes of trend testing. Several halogenated hydrocarbons were reported for the first time, including chlorobenzene, tetrachloroethene, and vinyl chloride. DEQ-7 groundwater standards were exceeded for nitrate + nitrite at well SIMW-3, and for vinyl chloride at well SIMW-4, although the vinyl chloride value is estimated (J-qualified).

If you have any questions regarding this data report, please feel free to contact me at (406) 443-4150, Ext. 146.

Sincerely,



Mark Walker  
Environmental Scientist

Enclosures

c: Closed Sanitation, Inc. Landfill  
Barry Damschen Consulting, LLC





## REFERENCES

- Entranco, 2002. Sanitation, Inc. Letter Report from Bruce Siegmund to Pat Potts, MDEQ dated March 21, 2002.
- EPA, 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities -- Unified Guidance. Office of Resource Conservation and Recovery, Program Implementation and Information Division, EPA 530-R-09-007, March 2009.
- EPA, 2004. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (Final). Office of Superfund Remediation and Technology Innovation, EPA 540-R-04-004, October 2004.
- EPA, 1999. USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review. Office of Emergency and Remedial Response, EPA 540/R-99/008, October 1999.
- Hydrometrics, 2010. Sanitation, Inc. Landfill, Lewistown, Montana -- June 2009 Groundwater Sampling Report. Prepared for Barry Damschen Consulting, LLC. May 2010.
- MDEQ, 2010. Letter to Mr. William Spoja (Sanitation Inc.) from Mr. Martin van Oort (MDEQ) RE: Closed Sanitation Inc. Landfill -- Fergus County -- License #291, June 2009 Groundwater Sampling Report. Dated June 2, 2010.



TABLE 1. WATER QUALITY OF DAMING RESERVOIR

| Year | Water Quality Index | Water Quality Index |
|------|---------------------|---------------------|
| Year | Water Quality Index | Water Quality Index |
| 2000 | 75                  | 75                  |
| 2001 | 75                  | 75                  |
| 2002 | 75                  | 75                  |
| 2003 | 75                  | 75                  |
| 2004 | 75                  | 75                  |
| 2005 | 75                  | 75                  |
| 2006 | 75                  | 75                  |
| 2007 | 75                  | 75                  |
| 2008 | 75                  | 75                  |
| 2009 | 75                  | 75                  |
| 2010 | 75                  | 75                  |
| 2011 | 75                  | 75                  |
| 2012 | 75                  | 75                  |

Source: Sanitation Inc. (2012)

## TABLES





**TABLE 1. WATER LEVEL MEASUREMENT RESULTS**

| Well   | June 2012 Static<br>Water Level (ft bmp) | June 2012 Groundwater<br>Elevation (ft) |
|--------|------------------------------------------|-----------------------------------------|
| SIMW-2 | 32.8                                     | 4090.91                                 |
| SIMW-3 | 28.05                                    | 4082.86                                 |
| SIMW-4 | 28.57                                    | 4049.50                                 |
| SIP-1  | 33.15                                    | 4087.09                                 |
| SIP-2  | NM                                       | NM                                      |

NOTES:      bmp = below measuring point





**TABLE 2. JUNE 2012 INTRAWELL PREDICTION LIMIT SUMMARY**  
**Closed Sanitation, Inc. Landfill, Lewistown, Montana**

| Parameter                      | SIMW-2            |                 |                   | SIMW-3            |                 |                   | SIMW-4            |                 |                   |
|--------------------------------|-------------------|-----------------|-------------------|-------------------|-----------------|-------------------|-------------------|-----------------|-------------------|
|                                | Dist <sup>1</sup> | PL <sup>2</sup> | Value             | Dist <sup>1</sup> | PL <sup>2</sup> | Value             | Dist <sup>1</sup> | PL <sup>2</sup> | Value             |
| pH (s.u.)                      | N(95)             | 6.3-8.2         | 6.9               | N(95)             | 6.4-8.4         | 7.1               | N(95)             | 6.4-7.5         | 6.9               |
| SC (µmhos/cm)                  | NN                | 1548            | <b>1700**</b>     | ln-N(99)          | 1229            | <b>1300**</b>     | N(99)             | 3492            | 2640              |
| chloride (mg/L)                | NN                | 66              | 30                | N(95)             | 37              | 36                | N(95)             | 357             | 202               |
| sulfate (mg/L)                 | NN                | 236             | 140               | NN                | 162             | <b>200**</b>      | N(95)             | 381             | 121               |
| COD (mg/L)                     | ln-N(99)          | 50              | 10                | ln-N(95)          | 59              | 9                 | N(95)             | 195             | 94                |
| nitrate + nitrite (mg/L as N)  | N(95)             | 4.74            | 2.55              | N(95)             | 12.9            | 11.5              | NN                | 1.67            | 0.36              |
| iron (diss) (mg/L)             | NC                | NC              | <0.03             | NN                | 0.67            | <b>1.0#</b>       | NC                | NC              | <0.03             |
| nickel (diss) (mg/L)           | NC                | NC              | <0.01             | NC                | NC              | <0.01             | N(95)             | 0.07            | 0.05              |
| selenium (diss) (mg/L)         | NC                | NC              | <0.005            | N(95)             | 0.026           | 0.023             | NC                | NC              | <0.005            |
| zinc (diss) (mg/L)             | NN                | 0.08            | 0.02              | NN                | 0.03            | 0.01              | N(95)             | 0.05            | 0.03              |
| acetone (µg/L)                 | NC                |                 | <1.0              | NC                |                 | <1.0              | ND                |                 | <b>7.5 (J)#</b>   |
| benzene (µg/L)                 | NC                |                 | <1.0              | NC                |                 | <1.0              | ND                |                 | <b>0.54 (J)**</b> |
| chlorobenzene (µg/L)           | NC                |                 | <1.0              | NC                |                 | <1.0              | ND                |                 | <b>0.78 (J)#</b>  |
| chloroethane (µg/L)            | NC                |                 | <1.0              | NC                |                 | <1.0              | ND                |                 | <b>0.73 (J)#</b>  |
| 1,4-dichlorobenzene (µg/L)     | NC                |                 | <1.0              | NC                |                 | <1.0              | ND                |                 | <b>0.60 (J)#</b>  |
| dichlorodifluoromethane (µg/L) | ND                |                 | <b>0.20 (J)#</b>  | ND                |                 | <b>0.17 (J)#</b>  | NC                |                 | <1.0              |
| 1,1-dichloroethane (µg/L)      | ND                |                 | <b>0.16 (J)#</b>  | NC                |                 | <1.0              | ND                |                 | <b>0.36 (J)**</b> |
| cis-1,2-dichloroethene (µg/L)  | NC                |                 | <1.0              | NC                |                 | <1.0              | ND                |                 | <b>0.14 (J)#</b>  |
| tetrachloroethene              | ND                |                 | <b>0.26 (J)#</b>  | NC                |                 | <1.0              | NC                |                 | <1.0              |
| 1,1,1-trichloroethane (µg/L)   | ND                |                 | <b>0.79 (J)**</b> | ND                |                 | <b>0.44 (J)**</b> | NC                |                 | <1.0              |
| trichlorofluoromethane (µg/L)  | ND                |                 | <b>0.24 (J)#</b>  | ND                |                 | <b>0.94 (J)**</b> | NC                |                 | <1.0              |
| vinyl chloride (µg/L)          | NC                |                 | <1.0              | NC                |                 | <1.0              | ND                |                 | <b>0.21 (J)#</b>  |
| o-xylene (µg/L)                | NC                |                 | <1.0              | NC                |                 | <1.0              | ND                |                 | <b>0.31 (J)#</b>  |
| total xylenes (µg/L)           | NC                |                 | <1.0              | NC                |                 | <1.0              | ND                |                 | <b>0.31 (J)#</b>  |

NOTES: <sup>1</sup> Dist = Distribution; test for normality was conducted using the Shapiro-Wilks test.

N(X) = data normally distributed at X% level of significance

ln-N(X) = data ln-normally distributed at X% level of significance

NN = data not normally or ln-normally distributed at 95% or 99% level of significance.

ND = baseline data below detection limits.

<sup>2</sup> PL = Prediction limits; calculated as follows:

Normal or ln-normal distribution: parametric intrawell prediction interval (99% one-sided, two-sided for pH)

Non-normal distribution: non-parametric intrawell prediction interval (99% one-sided, two-sided for pH)

ND: any detectable concentrations in compliance wells are considered significant

**Bold values indicate statistically significant results.**

NC = not calculated (most recent sample below detection limit).

#Trend test indicated no significant increasing (or decreasing for pH) trend.

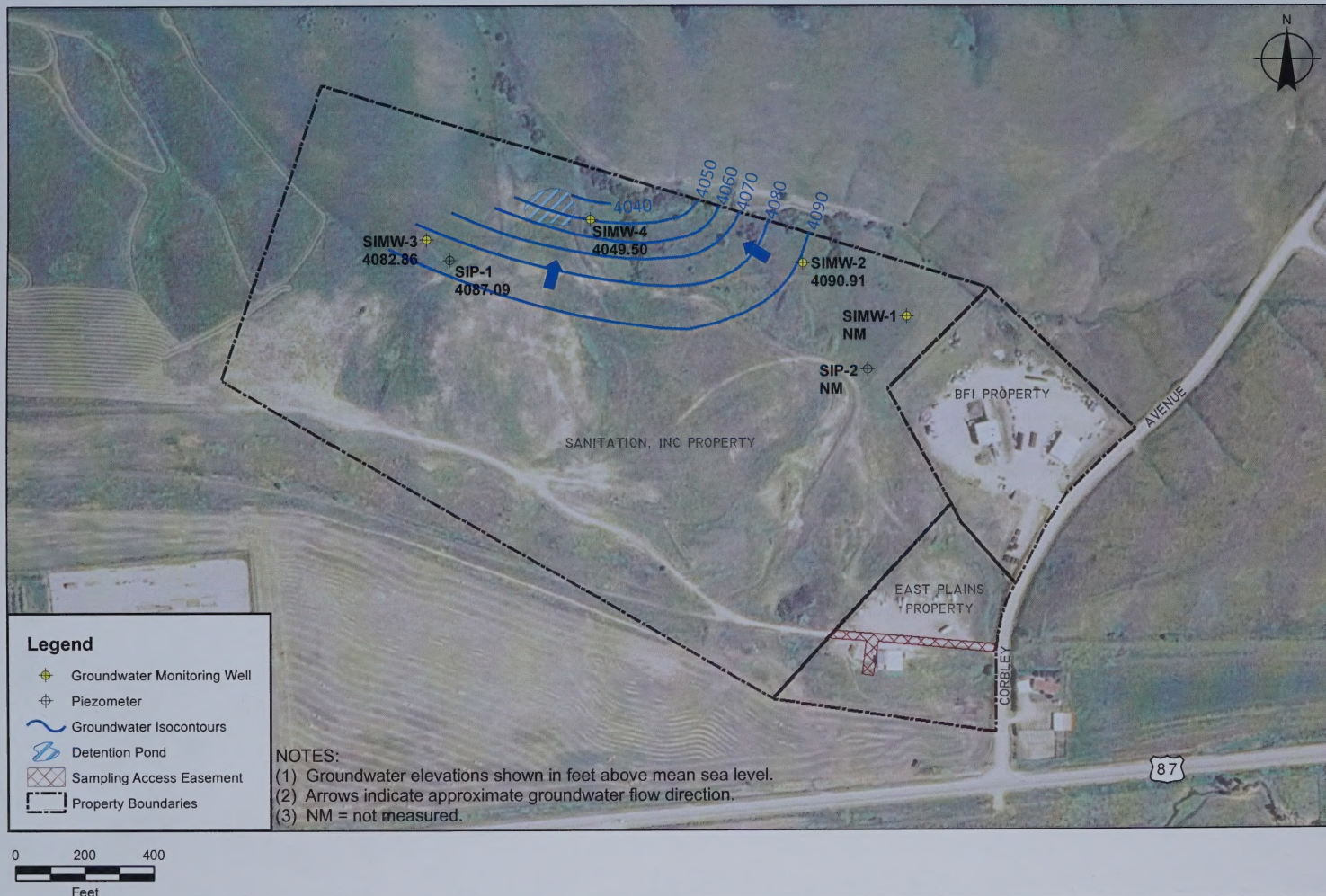
\*\*Trend test indicated a significant increasing trend.



## FIGURES







Closed Sanitation, Inc. Landfill  
June 2012 Groundwater Monitoring Report

JUNE 2012  
GROUNDWATER MONITORING LOCATIONS  
AND GROUNDWATER ELEVATIONS

FIGURE

1



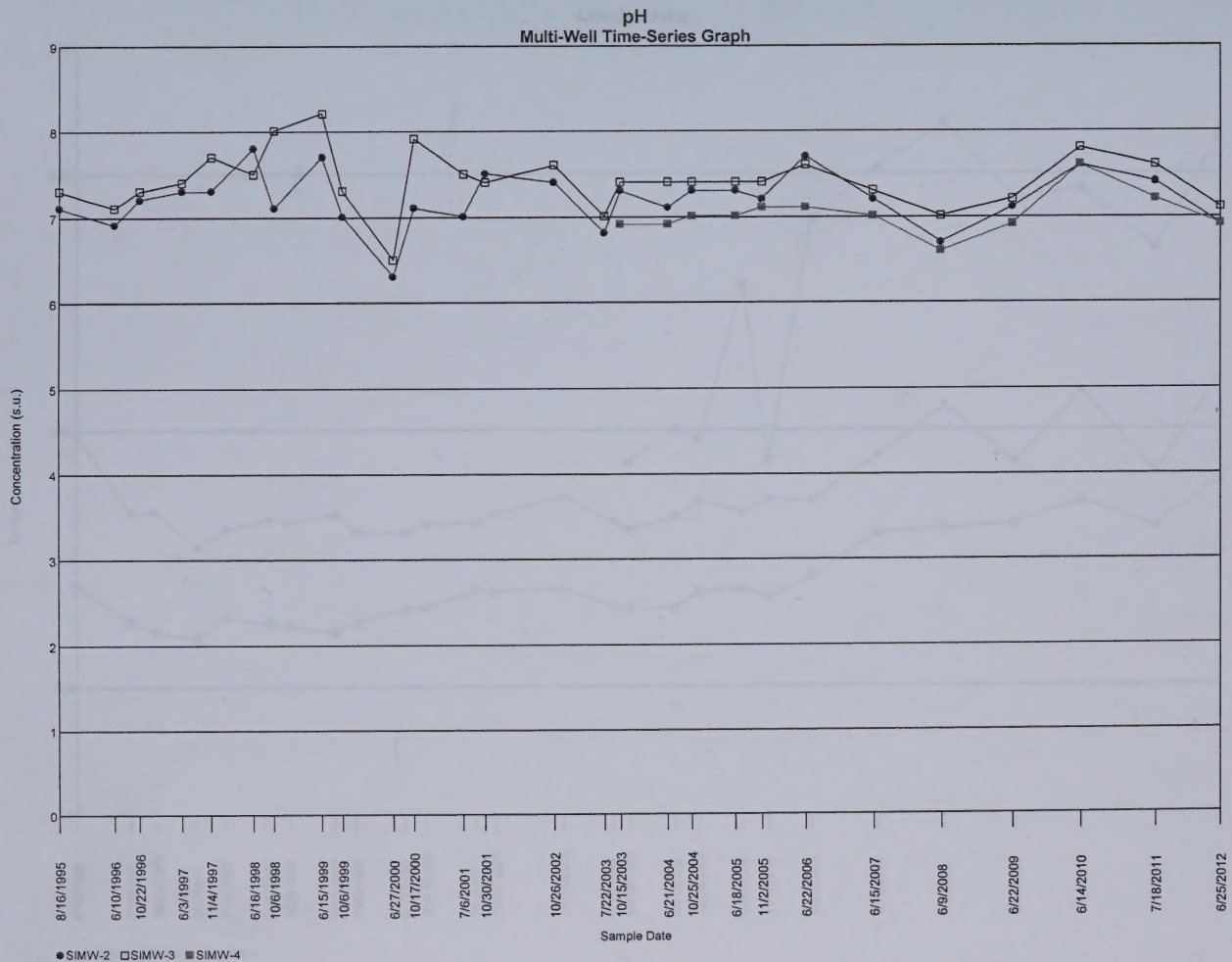




## **ATTACHMENT 1**

### **TREND GRAPHS**

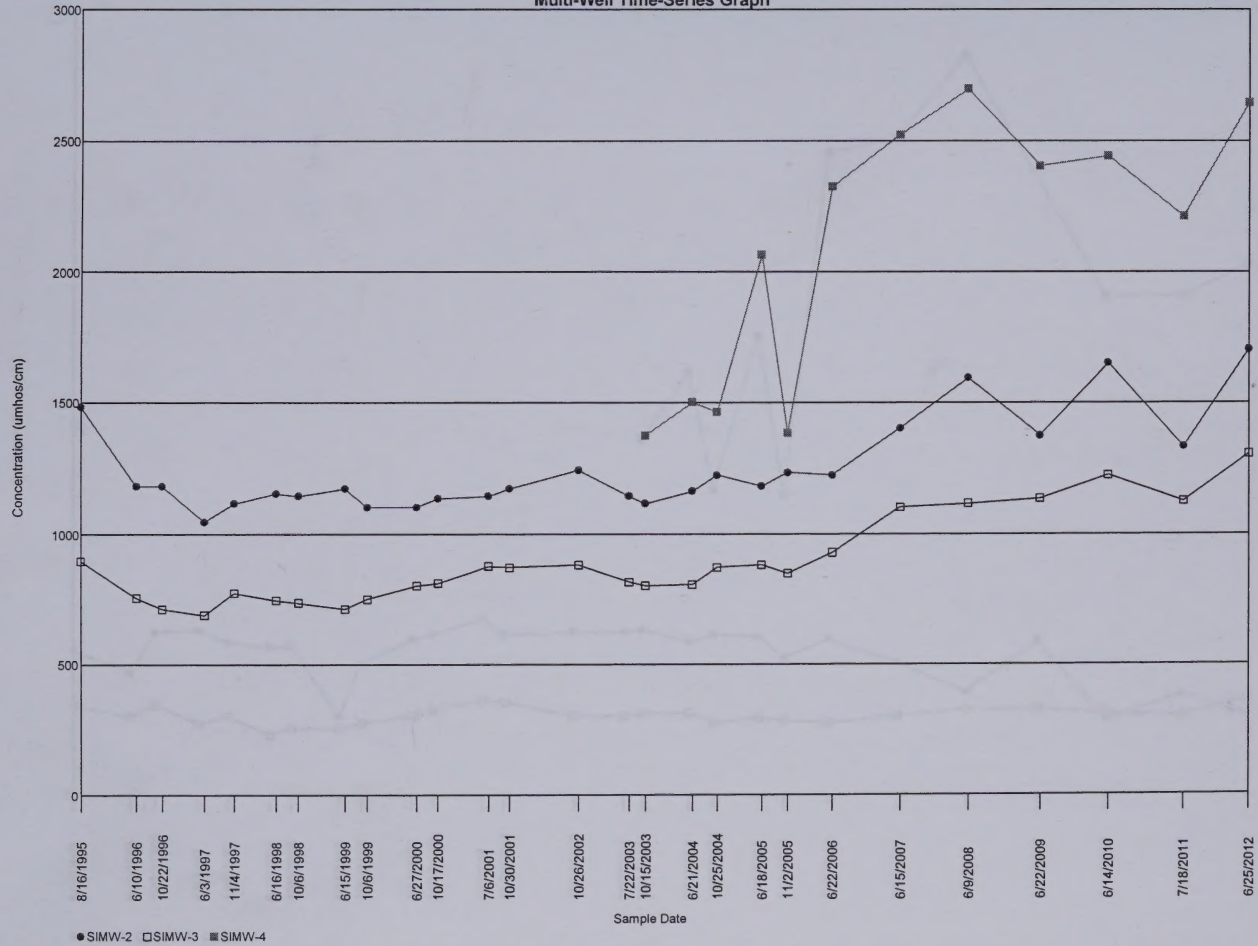








Conductivity  
Multi-Well Time-Series Graph







Chloride  
Multi-Well Time-Series Graph





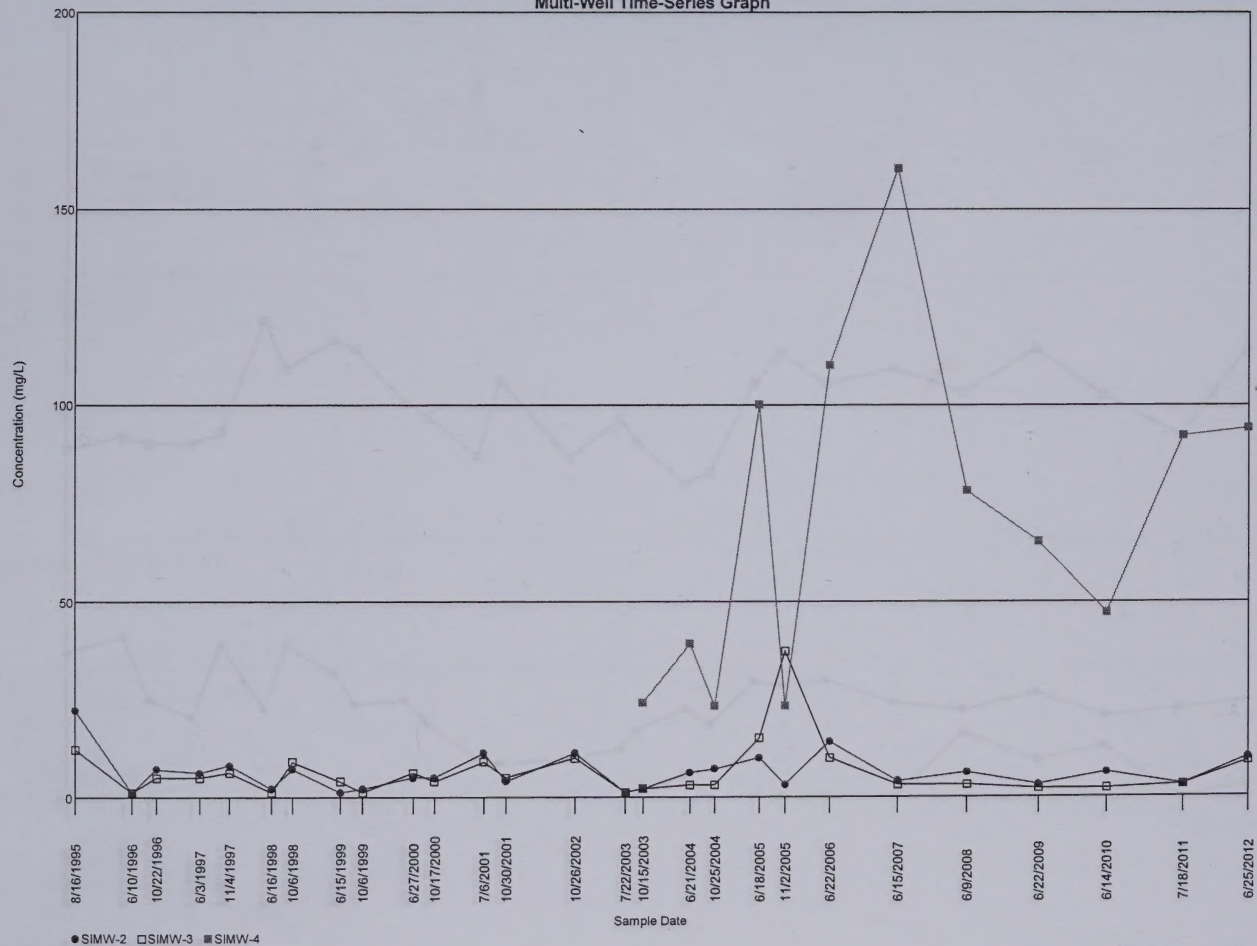
# Sulfate Multi-Well Time-Series Graph







# Oxygen Demand, Chemical (COD) Multi-Well Time-Series Graph







Nitrate + Nitrite as N  
Multi-Well Time-Series Graph



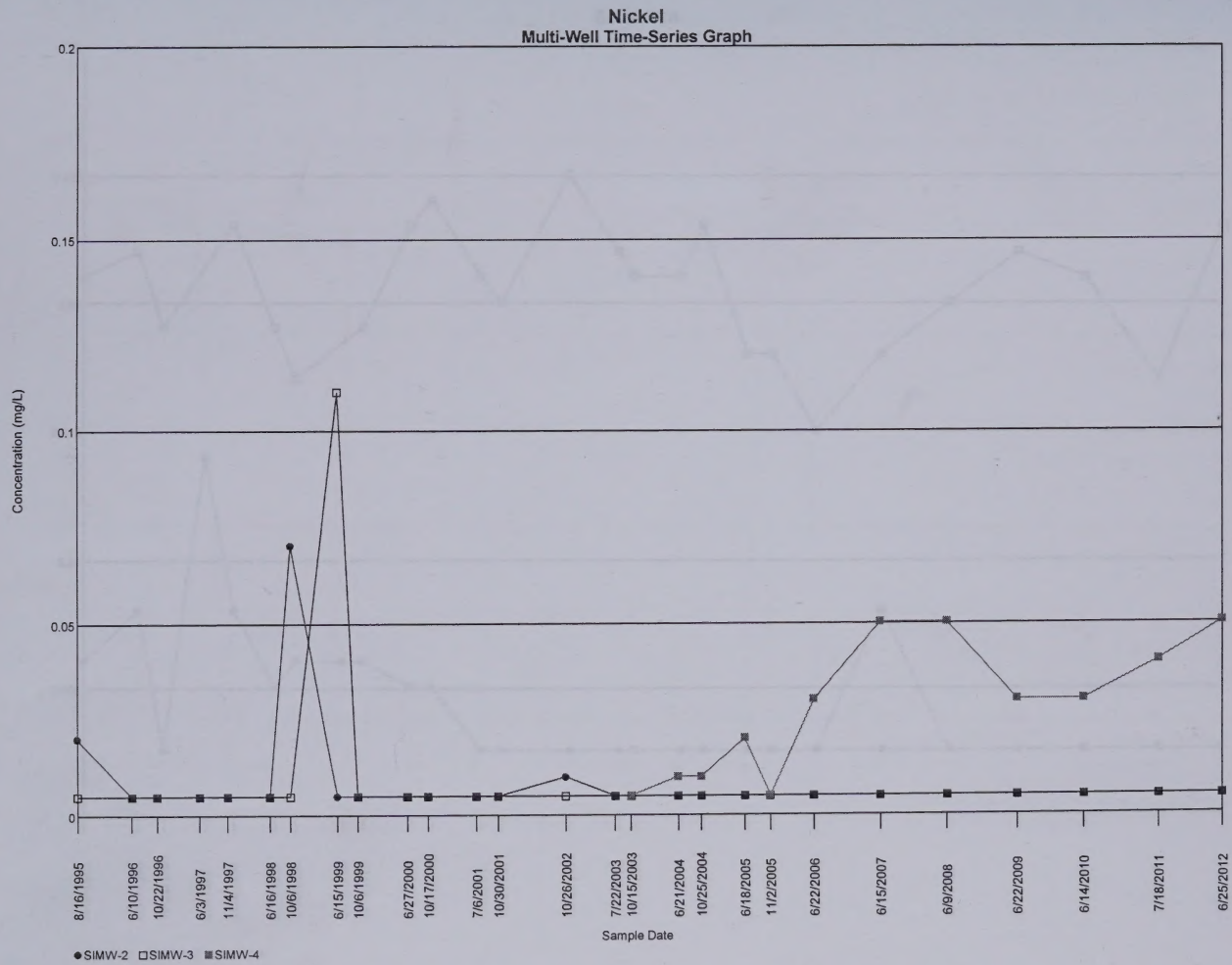


Iron  
Multi-Well Time-Series Graph



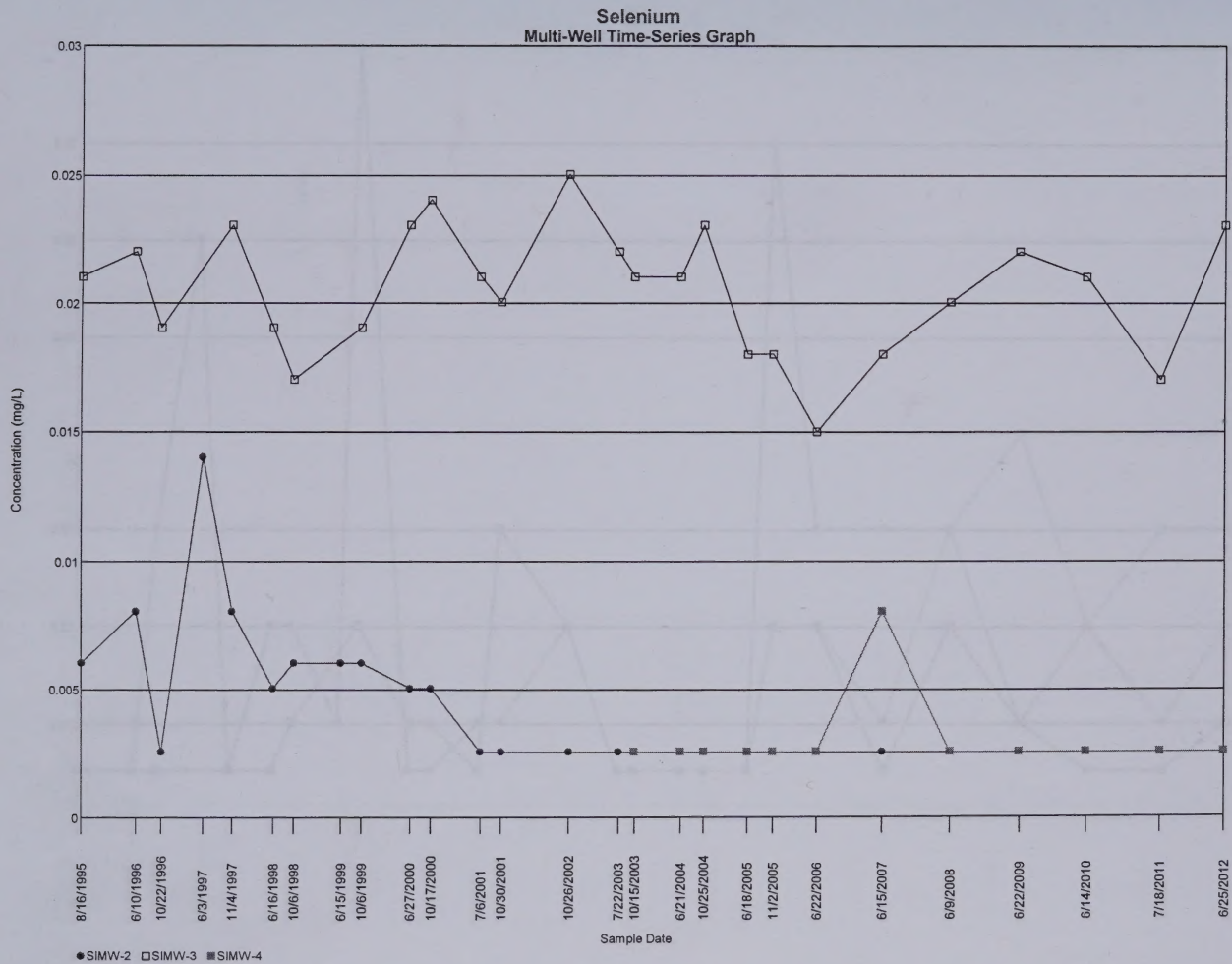




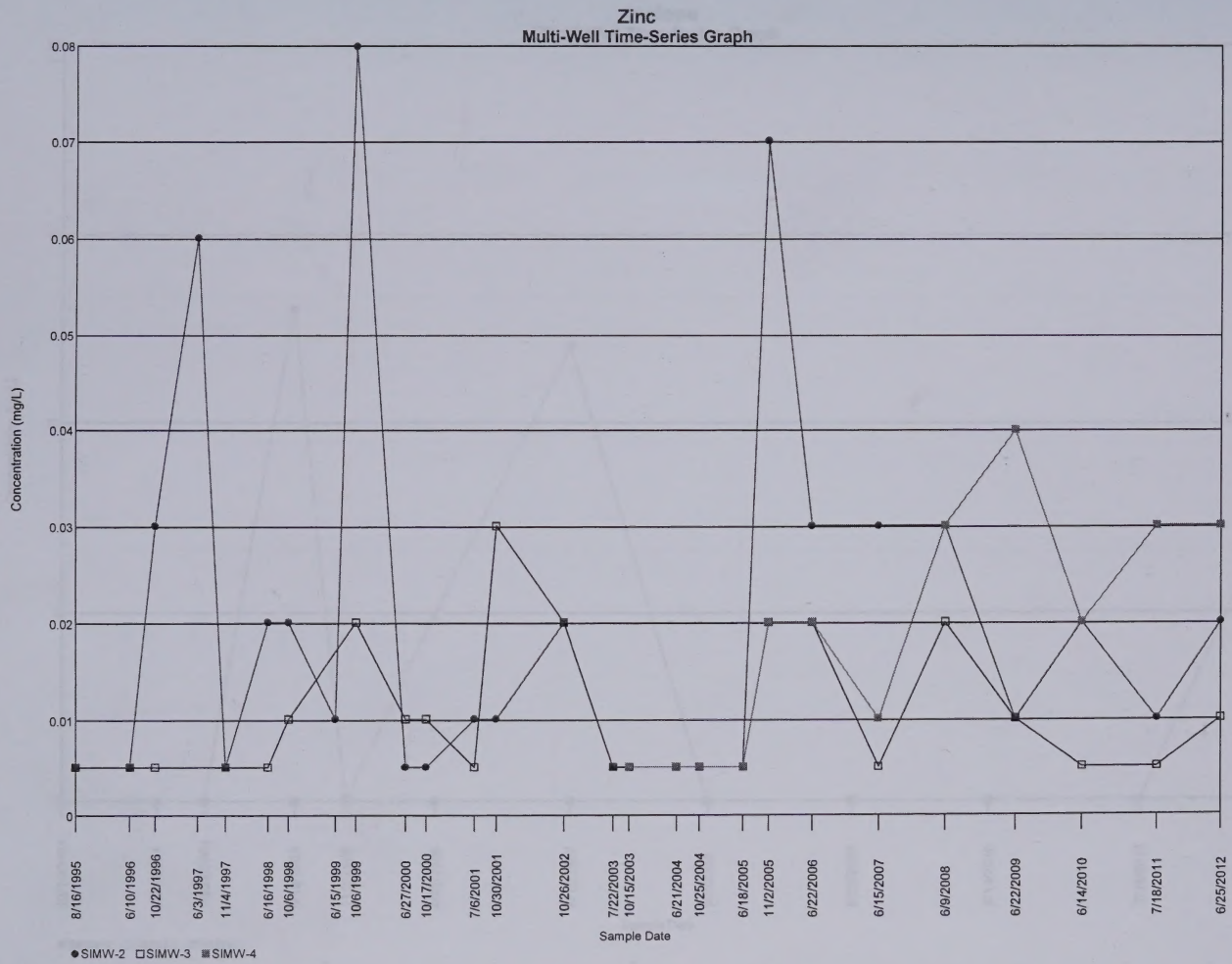








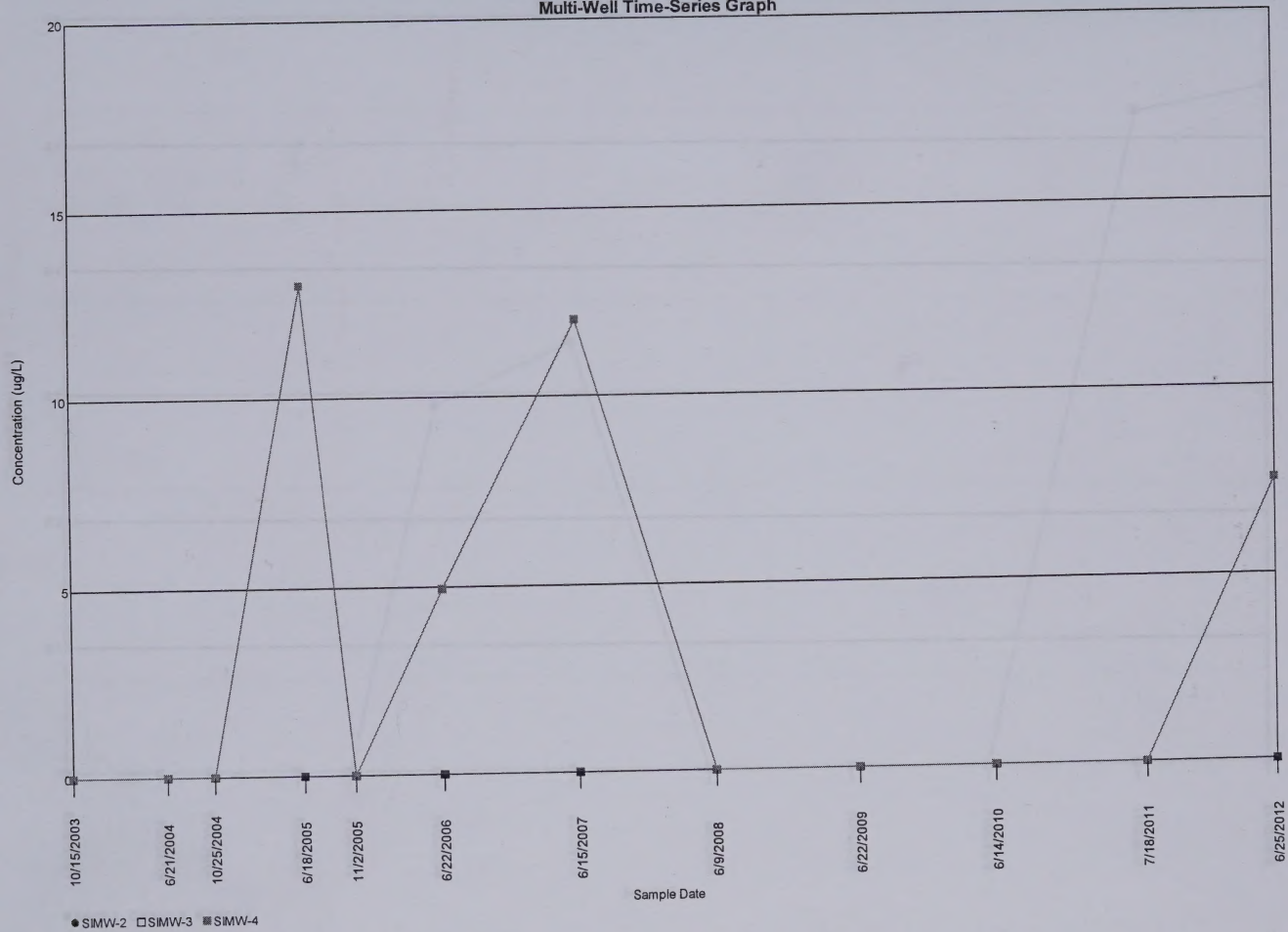




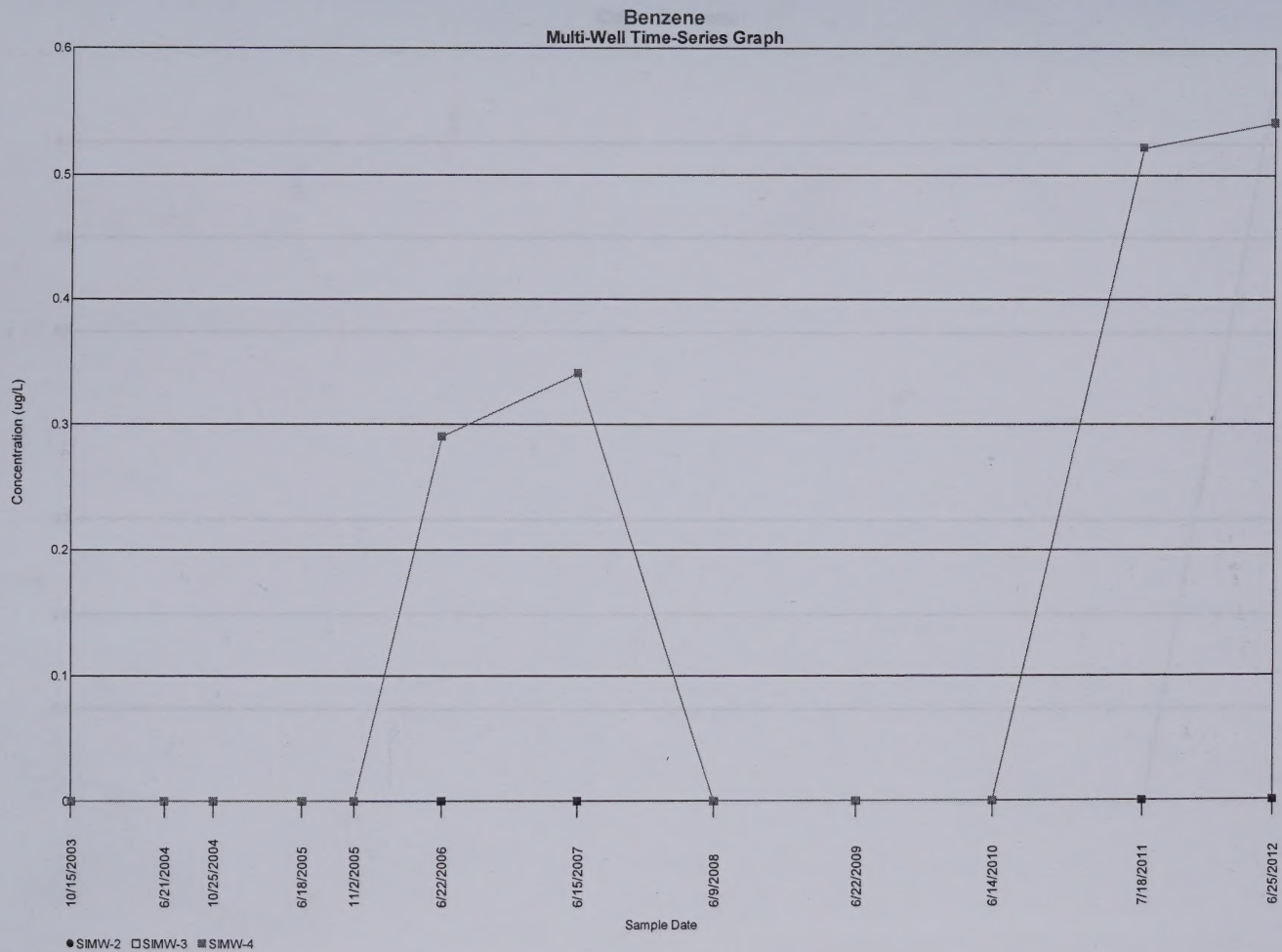




Acetone  
Multi-Well Time-Series Graph



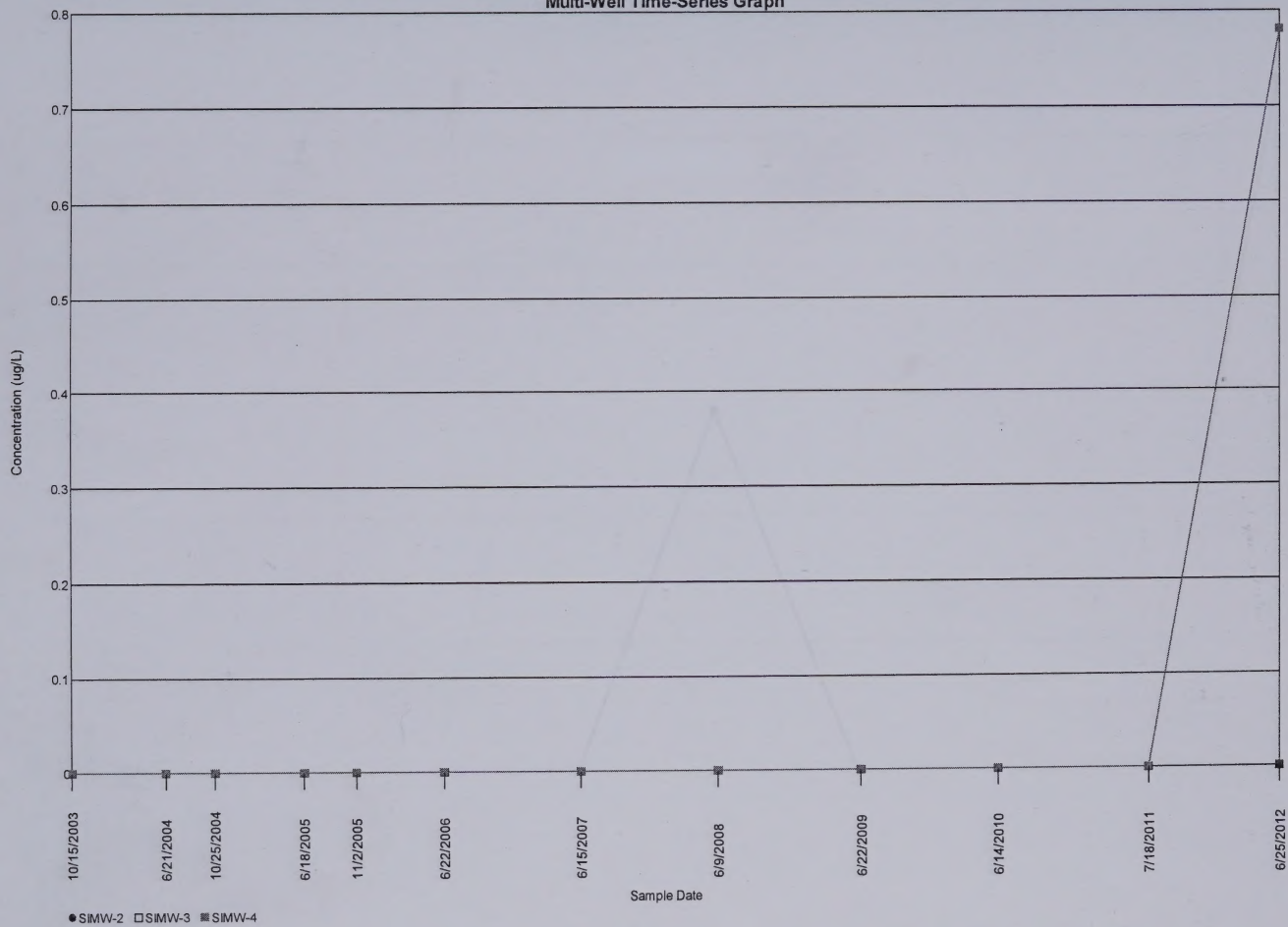






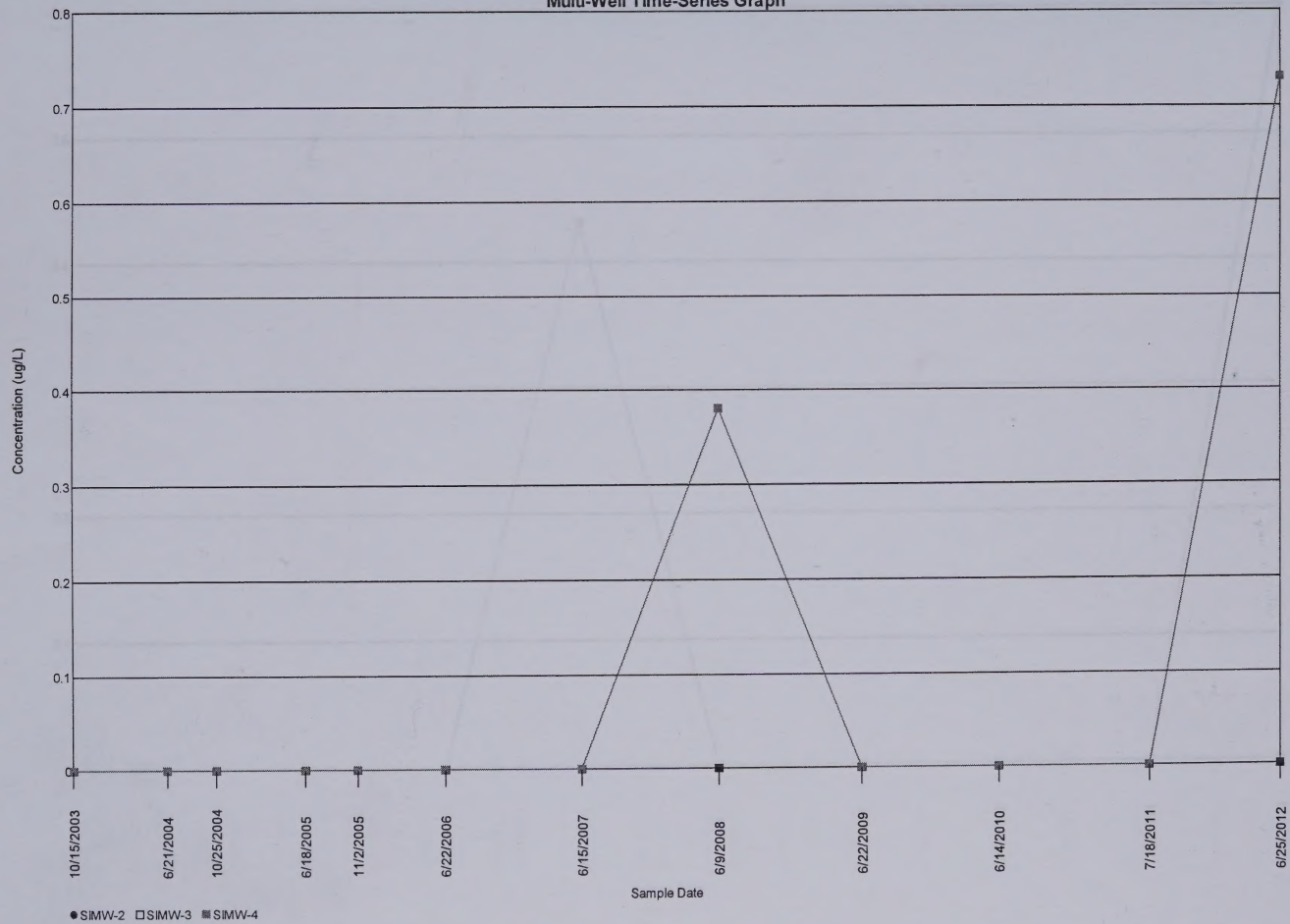


Chlorobenzene  
Multi-Well Time-Series Graph





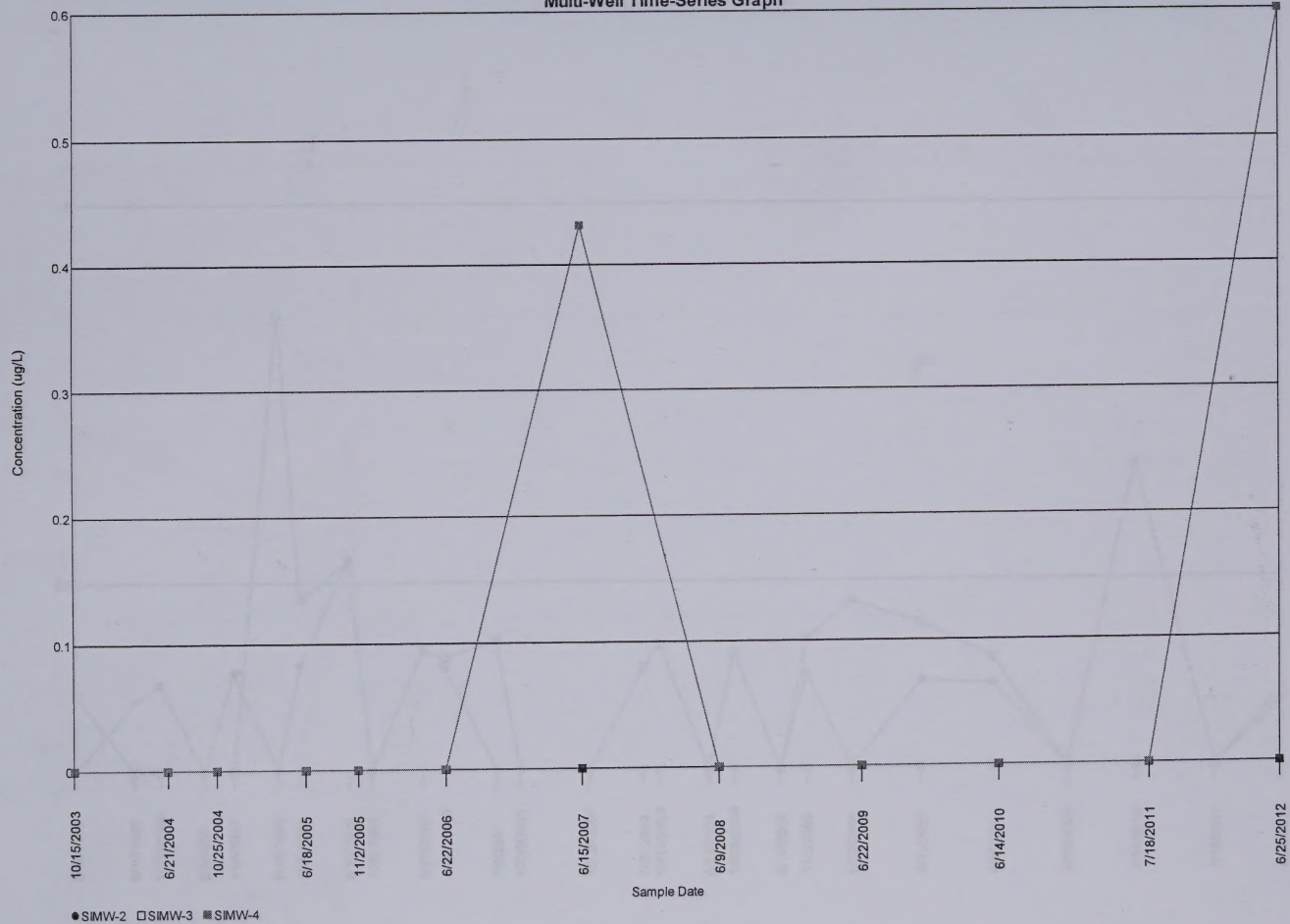
Chloroethane  
Multi-Well Time-Series Graph







1,4-Dichlorobenzene  
Multi-Well Time-Series Graph





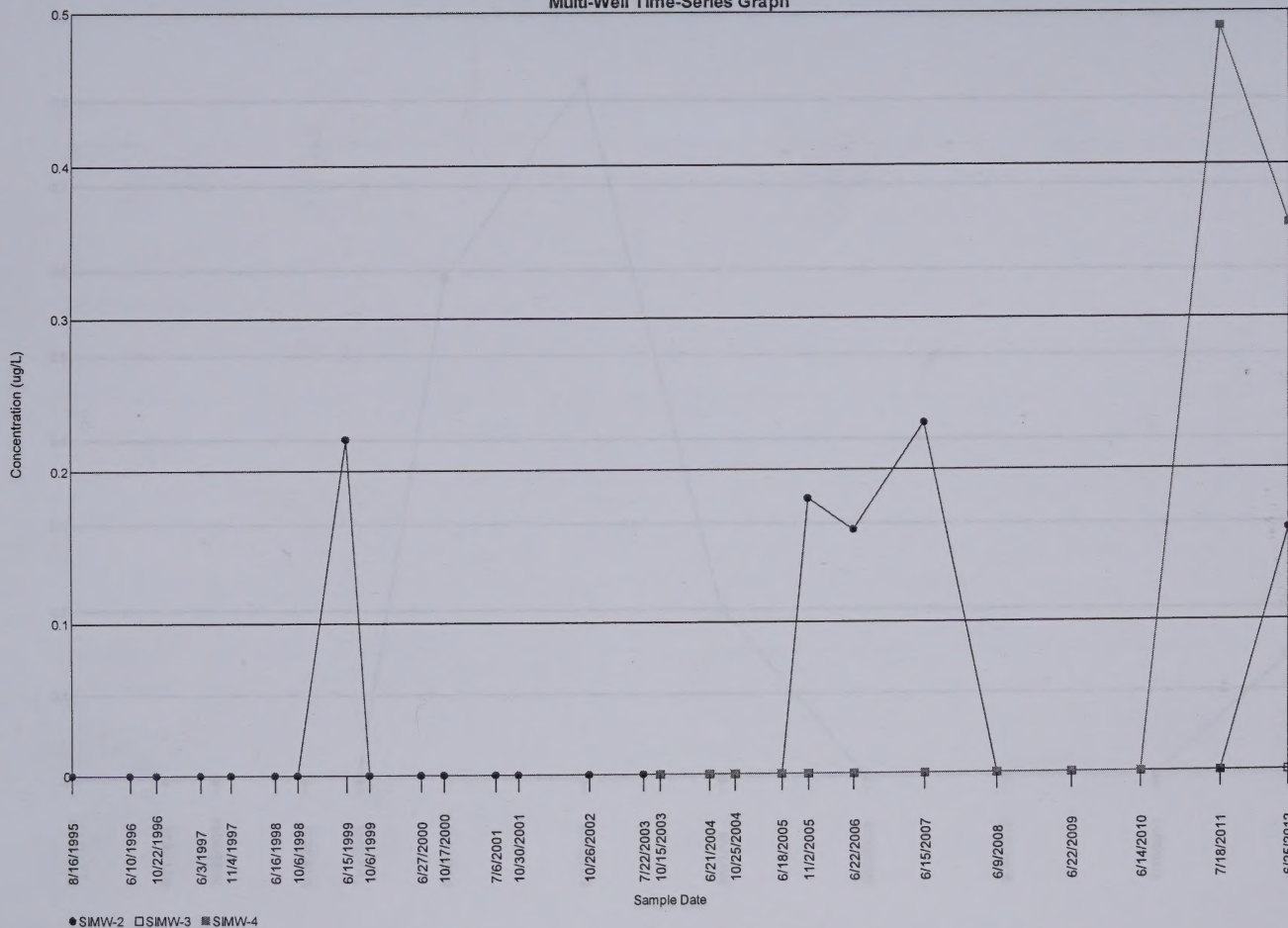
# Dichlorodifluoromethane Multi-Well Time-Series Graph





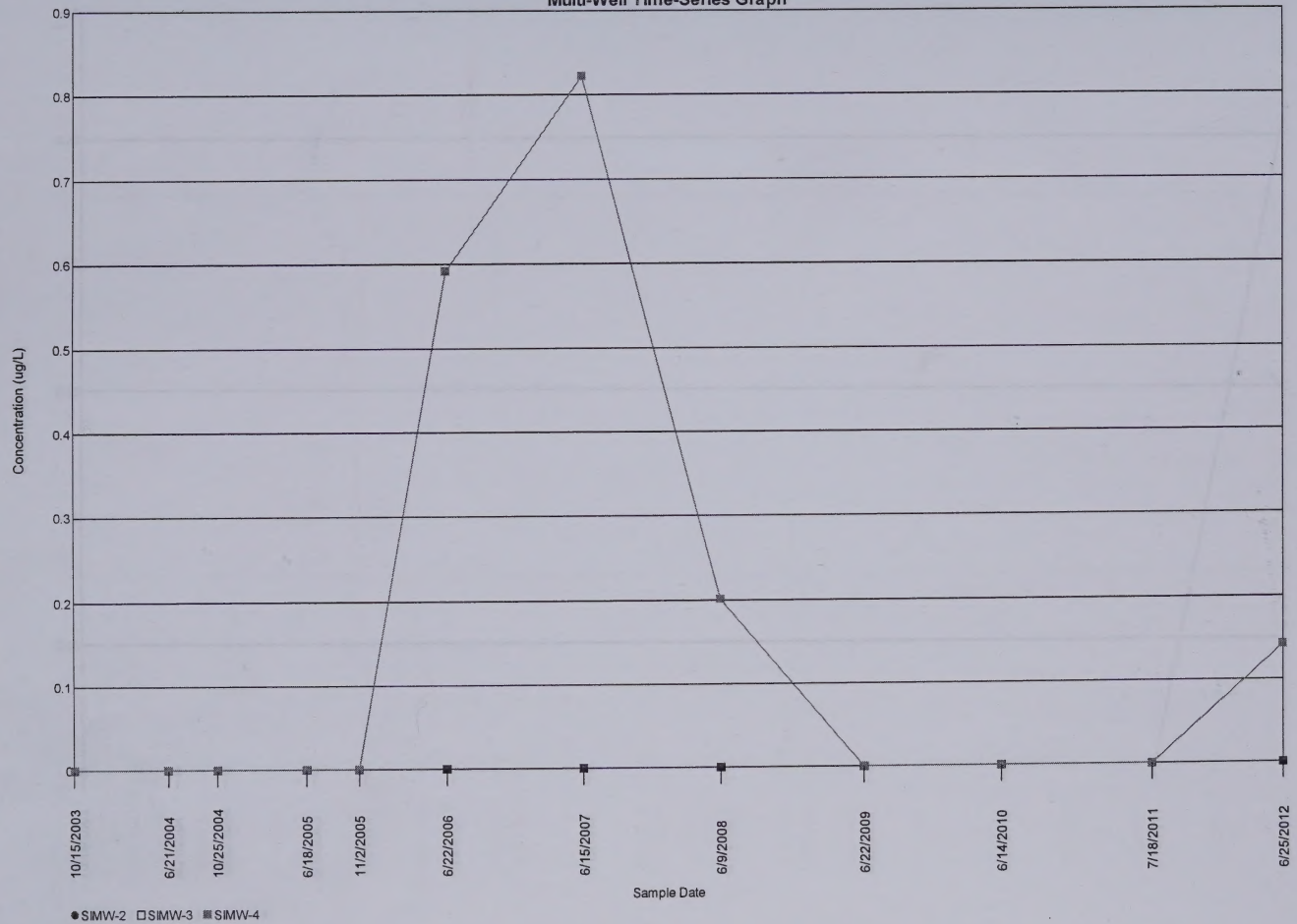


# 1,1-Dichloroethane Multi-Well Time-Series Graph





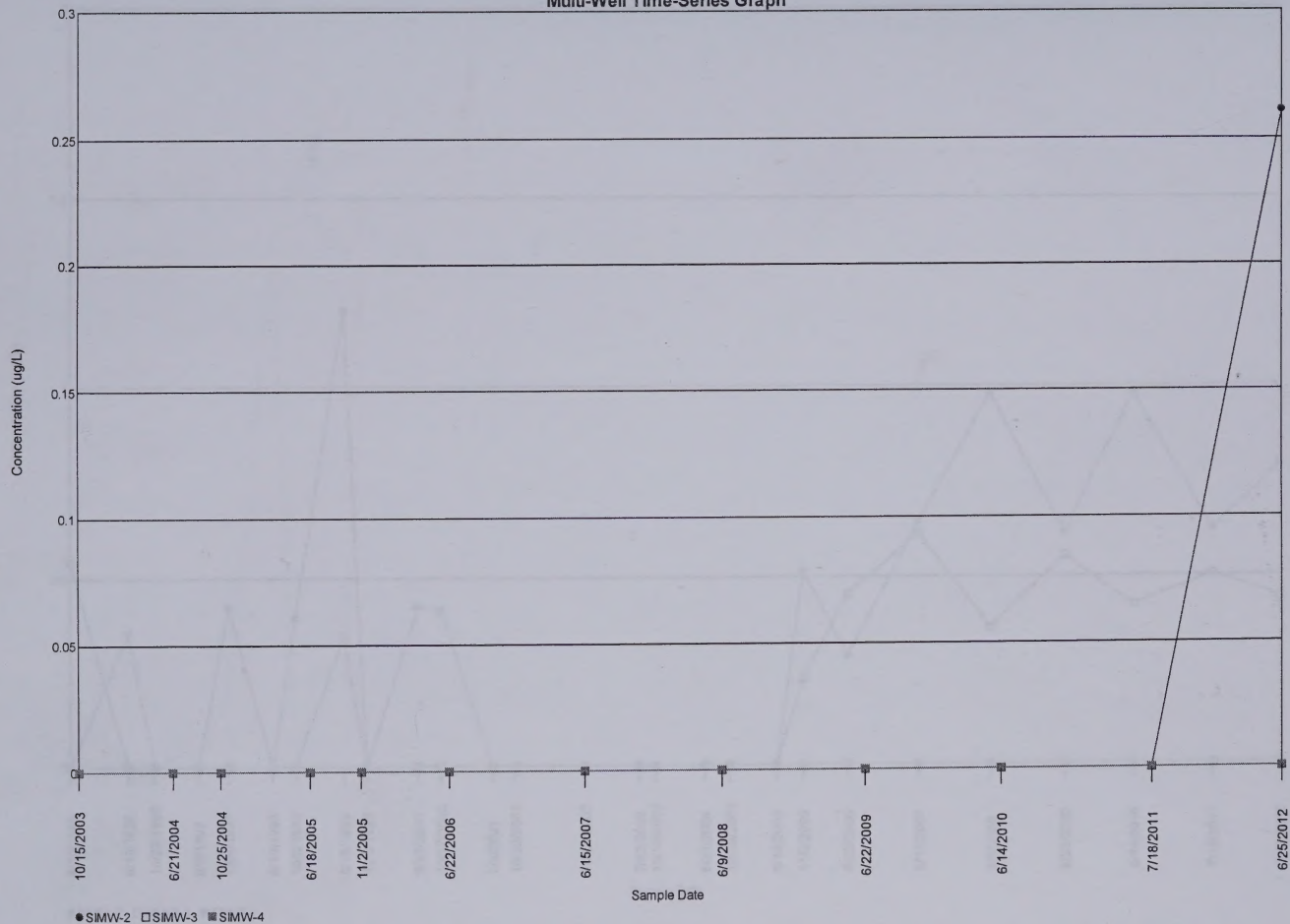
cis-1,2-Dichloroethene  
Multi-Well Time-Series Graph





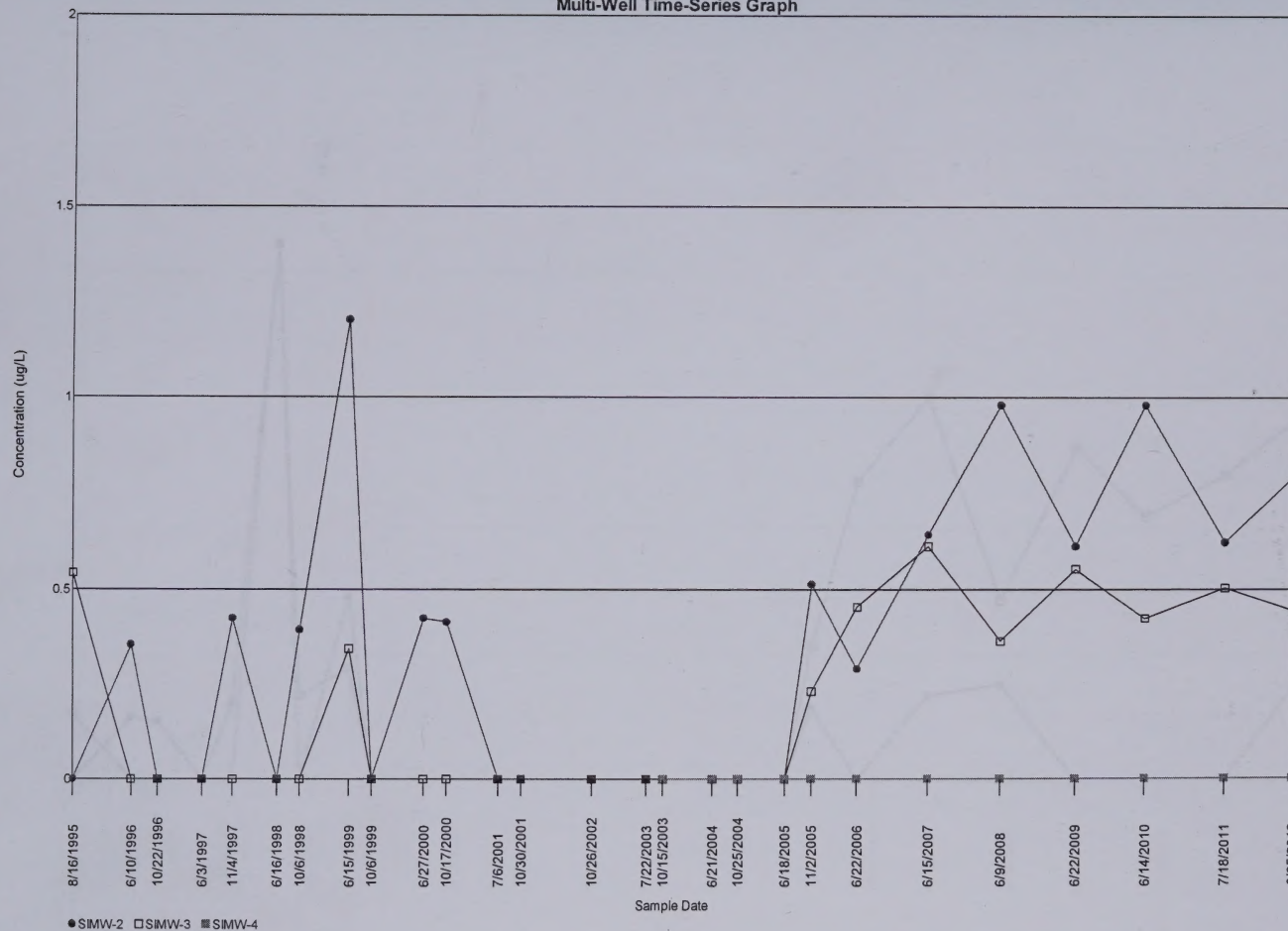


Tetrachloroethene  
Multi-Well Time-Series Graph





# 1,1,1-Trichloroethane Multi-Well Time-Series Graph





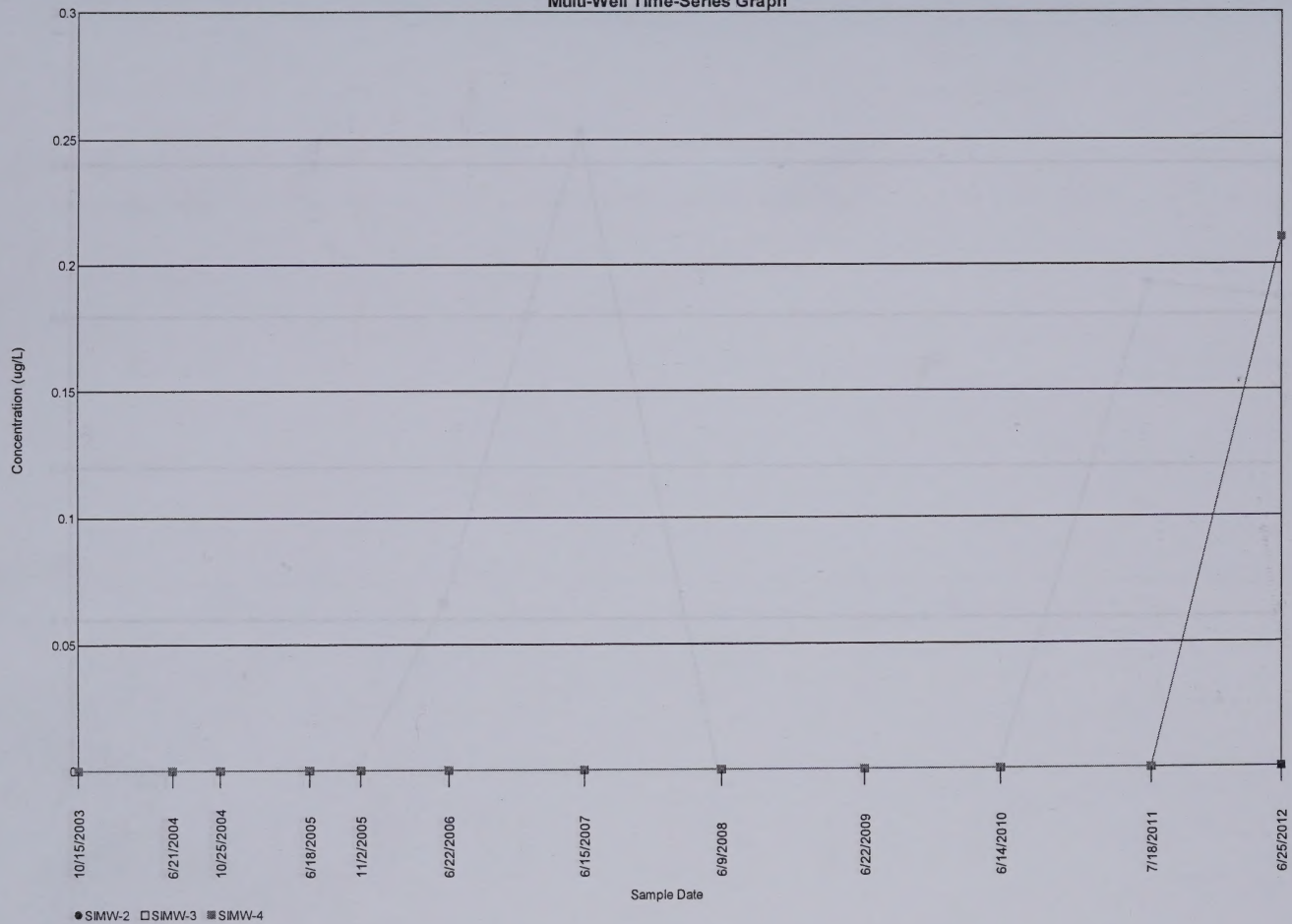


Trichlorofluoromethane  
Multi-Well Time-Series Graph





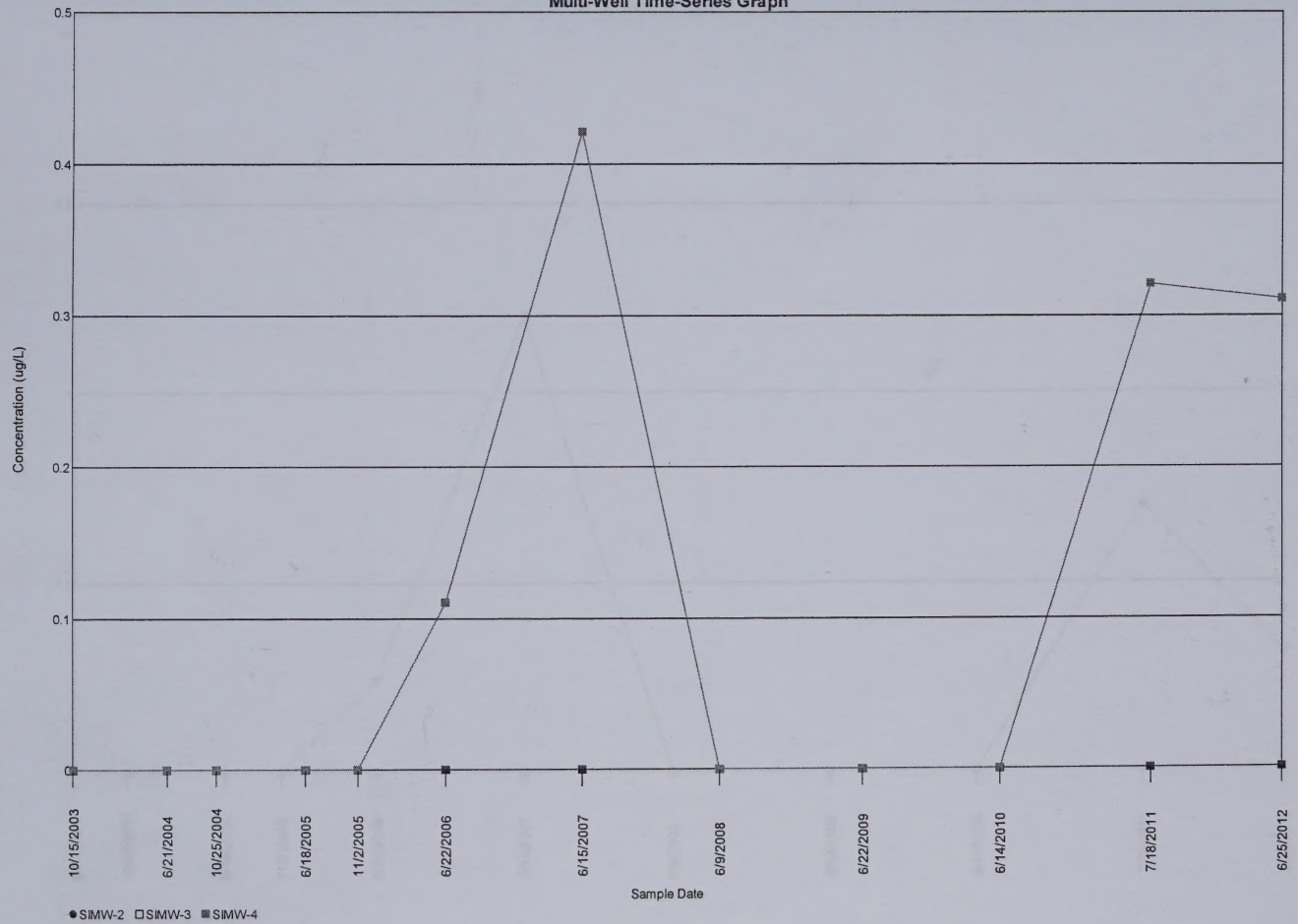
Vinyl chloride  
Multi-Well Time-Series Graph





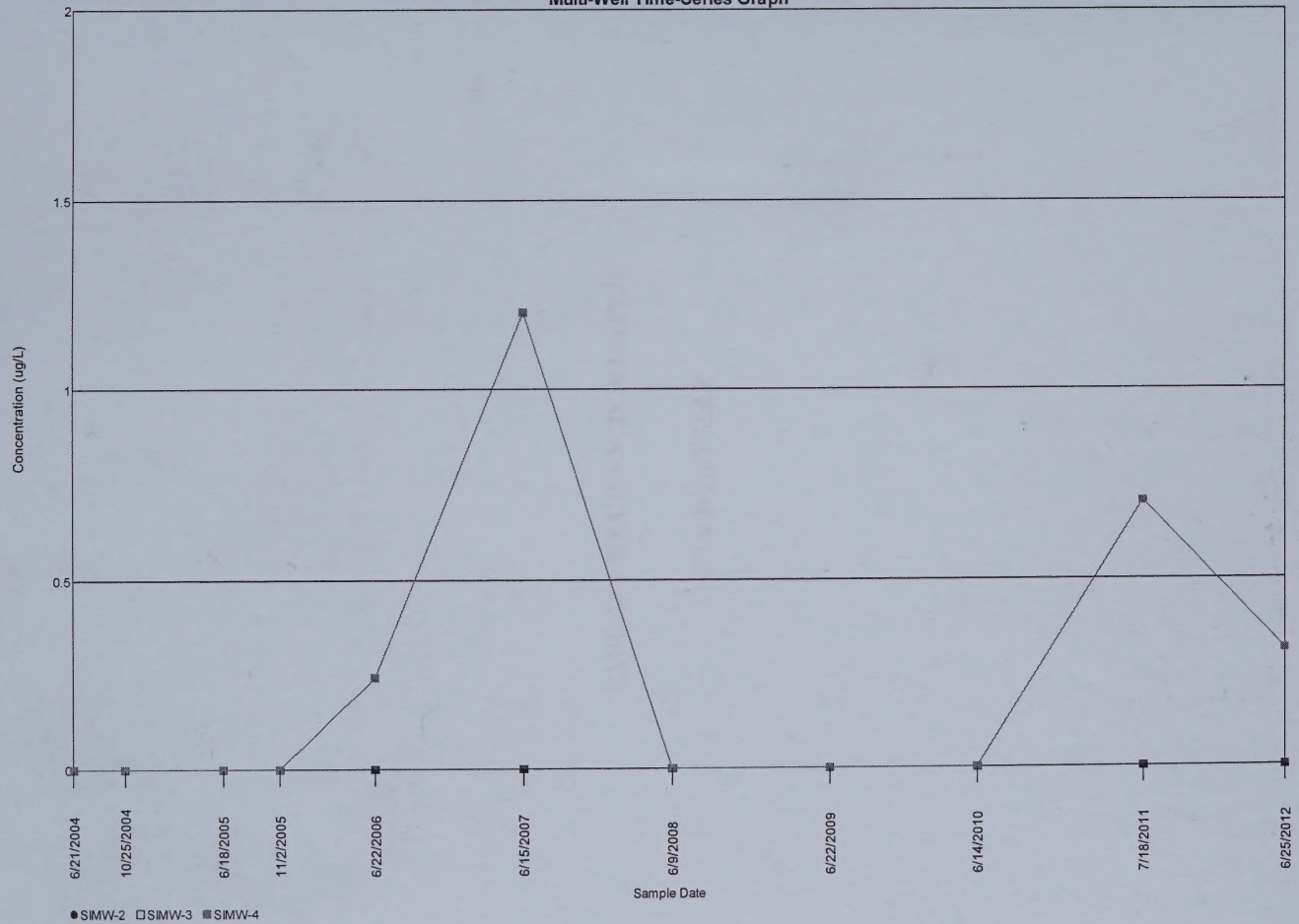


o-Xylene  
Multi-Well Time-Series Graph





Xylenes, Total  
Multi-Well Time-Series Graph

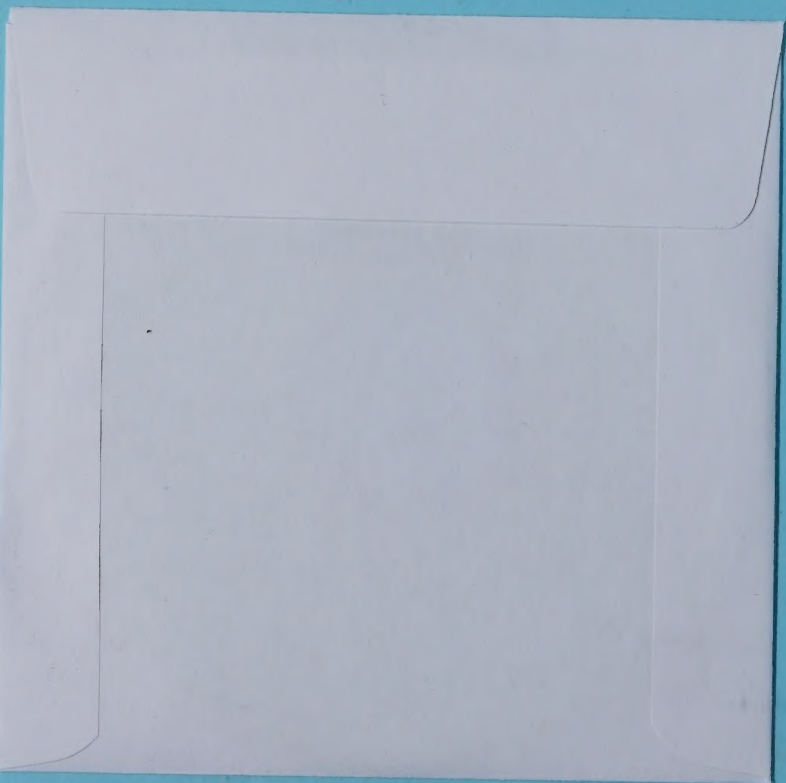






## ATTACHMENT 2

### STATISTICAL ANALYSIS REPORTS



**ATTACHMENT 3**

**FIELD FORMS AND LABORATORY REPORT**





pH-SC-Temp.

Instrument Calibration Form

Motor Type: Hyd DI TYPE C (03-538)

Serial No: 020644559

Project Name: Sanitation Inc LP

Date: 6-25-13

Personnel: B. R. L.

Weather: hot

pH CALIBRATION

| Time | Buffer | Temperature | Reading |
|------|--------|-------------|---------|
| 1300 | 4      |             |         |
|      | 7      |             | 7.13    |
|      | 10     |             |         |

Calibration Check:

STANDARD CELL CALIBRATION

| Time | Standard | Temperature | Reading | Cell Factor |
|------|----------|-------------|---------|-------------|
| 1300 | 1413     |             | 1910    |             |

Notes:

# GROUNDWATER MONITORING VOLUMES

Project Location Sanitation Project closed Date Sampled 6-25-12

| Well No.    | Total Depth<br>(Ft) | Depth to Water<br>(Ft) | Difference<br>(Ft) | 1 Well Volume<br>(Diff X .16) | 3 Well Volume<br>(X3) |
|-------------|---------------------|------------------------|--------------------|-------------------------------|-----------------------|
| 2           |                     |                        |                    |                               |                       |
| Typical     | 40                  | 33                     | 7                  | 1.12                          | 3.36                  |
| This Period |                     | 22.8                   | 17.2               | 2.75                          | 8.25                  |
| 3           |                     |                        |                    |                               |                       |
| Typical     | 37.5                | 29                     | 8.5                | 1.36                          | 4.1                   |
| This Period |                     | 28.05                  |                    |                               |                       |
| 4           |                     |                        |                    |                               |                       |
| Typical     | 49.5                | 27                     | 22.5               | 3.6                           | 10.0                  |
| This Period |                     | 28.6                   | 20.9               | 3.34                          | 10                    |
|             |                     |                        |                    |                               |                       |
| Typical     |                     |                        |                    |                               |                       |
| This Period |                     |                        |                    |                               |                       |
|             |                     |                        |                    |                               |                       |
| Typical     |                     |                        |                    |                               |                       |
| This Period |                     |                        |                    |                               |                       |



BARRY DAMSCHEN CONSULTING, LLC  
Helena, Montana

Ground Water Monitoring Field Report

Project: Sanitation Inc well: STMW-2  
Personnel: Barry Damschen  
Date: 6-25-2012 Time: \_\_\_\_\_  
Conditions: hot, breezy, clear  
Static Water Level: 32.80 Total Depth Parged: \_\_\_\_\_  
Purge Method: hand bail Volume Parged: \_\_\_\_\_

|    | Volume        | Temperature | Conductivity | pH          |
|----|---------------|-------------|--------------|-------------|
| 1. | <u>20 mls</u> | <u>12.1</u> | <u>1569</u>  | <u>9.13</u> |
| 2. | _____         | _____       | _____        | _____       |
| 3. | _____         | _____       | _____        | _____       |
| 4. | _____         | _____       | _____        | _____       |
| 5. | _____         | _____       | _____        | _____       |

Pumping Level: \_\_\_\_\_ (Minimum Pump)

Recovery (Inertial or better):

at 0 at 0.10 at 1 SEC. at 39.5

Comments:



BARRY DAMSCHEN CONSULTING LLC  
Helena, Montana

Ground Water Monitoring Field Report

Project: Saitafion Inc Well: SMW-3D  
Personnel: B. Damschen SMW-3  
Date: 6-25-12 Time: 1500  
Conditions: partly cloudy  
Static Water Level: ~~28.05~~ 28.05 Total Depth Purgel: \_\_\_\_\_  
Purge Method: hand bailer Volume Purgel: \_\_\_\_\_

|    | Volume                 | Temperature | Conductivity | pH          |
|----|------------------------|-------------|--------------|-------------|
| 1. | <u>2 1/2 gal / day</u> | <u>15.5</u> | <u>1120</u>  | <u>9.03</u> |
| 2. | _____                  | _____       | _____        | _____       |
| 3. | _____                  | _____       | _____        | _____       |
| 4. | _____                  | _____       | _____        | _____       |
| 5. | _____                  | _____       | _____        | _____       |

Pumping Level: \_\_\_\_\_ (Discharge Pump): \_\_\_\_\_

Recovery (Inertial or bailer): \_\_\_\_\_

hl 0 al 0.10 554C 37.1

Comments:

SIP-1 = 33.15

**GARRY DAMSCHEN CONSULTING, LLC**  
Helena, Montana

**Ground Water Monitoring Field Report**

Project: 51MW Sprinkler Inc Well: 51MW-4  
Personnel: G. Damschen  
Date: 6-25-13 Time: 1545  
Conditions: hot - partly cloudy - windy  
Static Water Level: 28.57 Total Depth Purgin: \_\_\_\_\_  
Purge Method: hand led Volume Purgin: \_\_\_\_\_

|    | Volume        | Temperature | Conductivity | pH          |
|----|---------------|-------------|--------------|-------------|
| 1. | <u>10</u>     | <u>12.2</u> | <u>1498</u>  | <u>8.67</u> |
| 2. | <u>10 1/4</u> | <u>10.9</u> | <u>2329</u>  | <u>8.11</u> |
| 3. | <u>10 1/2</u> | <u>10.7</u> | <u>2475</u>  | <u>7.97</u> |
| 4. | <u>11</u>     | <u>10.9</u> | <u>2522</u>  | <u>7.90</u> |
| 5. | _____         | _____       | _____        | _____       |

Pumping Level: \_\_\_\_\_ (Pneumatic Pump)

Recovery (Inverted or better):

at 0 at 0.10 at 4 SECS. at 27.8

Comments:



This serves as notice of this possibility. All sub-contract data will be clearly noted on your analytical report. Visit our web site at [www.energylab.com](http://www.energylab.com) for additional information, downloadable fee schedule, forms, and links.

## ANALYTICAL SUMMARY REPORT

July 09, 2012

Barry Damschen  
5531 York Rd  
Helena, MT 59602

Workorder No.: B12062268

Project Name: Sanitation Inc. Closed Landfill

Energy Laboratories Inc Billings MT received the following 5 samples for Barry Damschen on 6/26/2012 for analysis.

| Sample ID     | Client Sample ID             | Collect Date   | Receive Date | Matrix       | Test                                                                                                                                                                                                                                                                                         |
|---------------|------------------------------|----------------|--------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| B12062268-001 | SIMW-2                       | 06/25/12 14:30 | 06/26/12     | Ground Water | Metals by ICP/ICPMS, Dissolved Cyanide, Total Manual Distillation Total Cyanide Distillation Chemical Oxygen Demand Conductivity Mercury, Dissolved Anions by Ion Chromatography Nitrogen, Nitrate + Nitrite pH Digestion, Mercury by CVAA 8260-Volatile Organic Comp, 40 CFR Part 258 App I |
| B12062268-002 | SIMW-3                       | 06/25/12 15:00 | 06/26/12     | Ground Water | Same As Above                                                                                                                                                                                                                                                                                |
| B12062268-003 | SIMW-3D                      | 06/25/12 15:00 | 06/26/12     | Ground Water | Same As Above                                                                                                                                                                                                                                                                                |
| B12062268-004 | SIMW-4                       | 06/25/12 15:45 | 06/26/12     | Ground Water | Same As Above                                                                                                                                                                                                                                                                                |
| B12062268-005 | Trip Blank 062012 KK HCL0256 | 06/25/12 14:30 | 06/26/12     | Trip Blank   | 8260-Volatile Organic Comp, 40 CFR Part 258 App I                                                                                                                                                                                                                                            |

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 S 27th St., Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

*William T Brown*  
President

Digitally signed by  
Bill Brown

Date: 2012.07.09 16:23:09 -06:00



## LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

**Client:** Barry Damschen  
**Project:** Sanitation Inc. Closed Landfill  
**Lab ID:** B12062268-001  
**Client Sample ID:** SIMW-2

**Report Date:** 07/09/12  
**Collection Date:** 06/25/12 14:30  
**Date Received:** 06/26/12  
**Matrix:** Ground Water

| Analyses                          | Result | Units    | Qualifiers | RL     | MCL/<br>QCL | Method     | Analysis Date / By   |
|-----------------------------------|--------|----------|------------|--------|-------------|------------|----------------------|
| <b>PHYSICAL PROPERTIES</b>        |        |          |            |        |             |            |                      |
| pH                                | 6.9    | s.u.     | H          | 0.1    |             | A4500-H B  | 06/26/12 17:24 / rjb |
| Conductivity @ 25 C               | 1700   | umhos/cm | L          | 5      |             | A2510 B    | 06/26/12 17:24 / rjb |
| <b>INORGANICS</b>                 |        |          |            |        |             |            |                      |
| Chloride                          | 30     | mg/L     | D          | 2      |             | E300.0     | 06/28/12 16:59 / jrs |
| Sulfate                           | 140    | mg/L     | D          | 10     |             | E300.0     | 06/28/12 16:59 / jrs |
| Cyanide, Total                    | ND     | mg/L     |            | 0.005  |             | Kelada mod | 06/29/12 11:24 / hab |
| <b>AGGREGATE ORGANICS</b>         |        |          |            |        |             |            |                      |
| Oxygen Demand, Chemical (COD)     | 10     | mg/L     |            | 5      |             | E410.4     | 06/28/12 10:00 / bls |
| <b>NUTRIENTS</b>                  |        |          |            |        |             |            |                      |
| Nitrogen, Nitrate+Nitrite as N    | 2.55   | mg/L     | D          | 0.02   |             | E353.2     | 06/28/12 10:31 / bls |
| <b>METALS, DISSOLVED</b>          |        |          |            |        |             |            |                      |
| Antimony                          | ND     | mg/L     |            | 0.005  |             | SW6020     | 06/27/12 16:11 / car |
| Arsenic                           | ND     | mg/L     |            | 0.005  |             | SW6020     | 06/27/12 16:11 / car |
| Barium                            | ND     | mg/L     |            | 0.1    |             | SW6010B    | 06/27/12 14:53 / rlh |
| Beryllium                         | ND     | mg/L     |            | 0.001  |             | SW6020     | 06/27/12 16:11 / car |
| Cadmium                           | ND     | mg/L     |            | 0.001  |             | SW6010B    | 06/27/12 14:53 / rlh |
| Chromium                          | ND     | mg/L     |            | 0.01   |             | SW6010B    | 06/27/12 14:53 / rlh |
| Cobalt                            | ND     | mg/L     |            | 0.01   |             | SW6010B    | 06/27/12 14:53 / rlh |
| Copper                            | ND     | mg/L     |            | 0.01   |             | SW6010B    | 06/27/12 14:53 / rlh |
| Iron                              | ND     | mg/L     |            | 0.03   |             | SW6010B    | 06/27/12 14:53 / rlh |
| Lead                              | ND     | mg/L     |            | 0.01   |             | SW6020     | 06/27/12 16:11 / car |
| Mercury                           | ND     | mg/L     |            | 0.0001 |             | SW7470A    | 07/03/12 12:58 / ksm |
| Nickel                            | ND     | mg/L     |            | 0.01   |             | SW6010B    | 06/27/12 14:53 / rlh |
| Selenium                          | ND     | mg/L     |            | 0.005  |             | SW6020     | 06/27/12 16:11 / car |
| Silver                            | ND     | mg/L     |            | 0.005  |             | SW6010B    | 06/27/12 14:53 / rlh |
| Thallium                          | ND     | mg/L     |            | 0.005  |             | SW6020     | 06/27/12 16:11 / car |
| Vanadium                          | ND     | mg/L     |            | 0.1    |             | SW6010B    | 06/27/12 14:53 / rlh |
| Zinc                              | 0.02   | mg/L     |            | 0.01   |             | SW6010B    | 06/27/12 14:53 / rlh |
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |          |            |        |             |            |                      |
| Acetone                           | ND     | ug/L     |            | 20     |             | SW8260B    | 07/02/12 16:36 / nl  |
| Acrylonitrile                     | ND     | ug/L     |            | 20     |             | SW8260B    | 07/02/12 16:36 / nl  |
| Benzene                           | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 16:36 / nl  |
| Bromochloromethane                | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 16:36 / nl  |
| Bromodichloromethane              | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 16:36 / nl  |
| Bromoform                         | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 16:36 / nl  |
| Bromomethane                      | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 16:36 / nl  |
| Carbon disulfide                  | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 16:36 / nl  |

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
D - RL increased due to sample matrix.  
L - Lowest available reporting limit for the analytical method used.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
H - Analysis performed past recommended holding time.

# LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

**Client:** Barry Damschen  
**Project:** Sanitation Inc. Closed Landfill  
**Lab ID:** B12062268-001  
**Client Sample ID** SIMW-2

**Report Date:** 07/09/12  
**Collection Date:** 06/25/12 14:30  
**Date Received:** 06/26/12  
**Matrix:** Ground Water

| Analyses                          | Result | Units | Qualifiers | RL     | MCL/<br>QCL | Method  | Analysis Date / By  |
|-----------------------------------|--------|-------|------------|--------|-------------|---------|---------------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |       |            |        |             |         |                     |
| Carbon tetrachloride              | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| Chlorobenzene                     | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| Chlorodibromomethane              | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| Chloroethane                      | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| Chloroform                        | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| Chloromethane                     | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| 1,2-Dibromo-3-chloropropane       | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| 1,2-Dibromoethane                 | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| Dibromomethane                    | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| 1,2-Dichlorobenzene               | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| 1,4-Dichlorobenzene               | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| trans-1,4-Dichloro-2-butene       | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| Dichlorodifluoromethane           | 0.20   | ug/L  | J          | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| 1,1-Dichloroethane                | 0.16   | ug/L  | J          | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| 1,2-Dichloroethane                | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| 1,1-Dichloroethene                | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| cis-1,2-Dichloroethene            | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| trans-1,2-Dichloroethene          | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| 1,2-Dichloropropane               | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| cis-1,3-Dichloropropene           | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| trans-1,3-Dichloropropene         | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| Ethylbenzene                      | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| 2-Hexanone                        | ND     | ug/L  |            | 20     |             | SW8260B | 07/02/12 16:36 / nl |
| Iodomethane                       | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| Methyl ethyl ketone               | ND     | ug/L  |            | 20     |             | SW8260B | 07/02/12 16:36 / nl |
| Methyl isobutyl ketone            | ND     | ug/L  |            | 20     |             | SW8260B | 07/02/12 16:36 / nl |
| Methylene chloride                | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| Styrene                           | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| 1,1,1,2-Tetrachloroethane         | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| 1,1,2,2-Tetrachloroethane         | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| Tetrachloroethene                 | 0.26   | ug/L  | J          | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| Toluene                           | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| 1,1,1-Trichloroethane             | 0.79   | ug/L  | J          | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| 1,1,2-Trichloroethane             | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| Trichloroethene                   | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| Trichlorofluoromethane            | 0.24   | ug/L  | J          | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| 1,2,3-Trichloropropane            | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| Vinyl acetate                     | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| Vinyl chloride                    | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| m+p-Xylenes                       | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| o-Xylene                          | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| Xylenes, Total                    | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 16:36 / nl |
| Surr: 1,2-Dichloroethane-d4       | 115    | %REC  |            | 70-130 |             | SW8260B | 07/02/12 16:36 / nl |

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
J - Estimated value. The analyte was present but less than the reporting limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



## LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

**Client:** Barry Damschen  
**Project:** Sanitation Inc. Closed Landfill  
**Lab ID:** B12062268-001  
**Client Sample ID** SIMW-2

Report Date: 07/09/12  
Collection Date: 06/25/12 14:30  
DateReceived: 06/26/12  
Matrix: Ground Water

| Analyses                          | Result | Units | Qualifiers | RL     | MCL/<br>QCL | Method  | Analysis Date / By  |
|-----------------------------------|--------|-------|------------|--------|-------------|---------|---------------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |       |            |        |             |         |                     |
| Surr: Dibromofluoromethane        | 113    | %REC  |            | 77-126 |             | SW8260B | 07/02/12 16:36 / nl |
| Surr: p-Bromofluorobenzene        | 111    | %REC  |            | 76-127 |             | SW8260B | 07/02/12 16:36 / nl |
| Surr: Toluene-d8                  | 106    | %REC  |            | 79-122 |             | SW8260B | 07/02/12 16:36 / nl |

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.

## LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Barry Damschen  
Project: Sanitation Inc. Closed Landfill  
Lab ID: B12062268-002  
Client Sample ID SIMW-3

Report Date: 07/09/12  
Collection Date: 06/25/12 15:00  
DateReceived: 06/26/12  
Matrix: Ground Water

| Analyses                   | Result | Units | Qualifiers | RL     | MCL/ QCL | Method  | Analysis Date / By  |
|----------------------------|--------|-------|------------|--------|----------|---------|---------------------|
| VOLATILE ORGANIC COMPOUNDS |        |       |            |        |          |         |                     |
| Surr: Dibromofluoromethane | 114    | %REC  |            | 77-126 |          | SW8260B | 07/02/12 17:06 / nl |
| Surr: p-Bromofluorobenzene | 114    | %REC  |            | 76-127 |          | SW8260B | 07/02/12 17:06 / nl |
| Surr: Toluene-d8           | 104    | %REC  |            | 79-122 |          | SW8260B | 07/02/12 17:06 / nl |

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



## LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

**Client:** Barry Damschen  
**Project:** Sanitation Inc. Closed Landfill  
**Lab ID:** B12062268-003  
**Client Sample ID:** SIMW-3D

**Report Date:** 07/09/12  
**Collection Date:** 06/25/12 15:00  
**Date Received:** 06/26/12  
**Matrix:** Ground Water

| Analyses                          | Result | Units    | Qualifiers | RL     | MCL/<br>QCL | Method     | Analysis Date / By   |
|-----------------------------------|--------|----------|------------|--------|-------------|------------|----------------------|
| <b>PHYSICAL PROPERTIES</b>        |        |          |            |        |             |            |                      |
| pH                                | 7.1    | s.u.     | H          | 0.1    |             | A4500-H B  | 06/26/12 17:33 / rjb |
| Conductivity @ 25 C               | 1290   | umhos/cm | L          | 5      |             | A2510 B    | 06/26/12 17:33 / rjb |
| <b>INORGANICS</b>                 |        |          |            |        |             |            |                      |
| Chloride                          | 36     | mg/L     |            | 1      |             | E300.0     | 06/28/12 17:30 / jrs |
| Sulfate                           | 200    | mg/L     |            | 1      |             | E300.0     | 06/28/12 17:30 / jrs |
| Cyanide, Total                    | ND     | mg/L     |            | 0.005  |             | Kelada mod | 06/29/12 11:28 / hab |
| <b>AGGREGATE ORGANICS</b>         |        |          |            |        |             |            |                      |
| Oxygen Demand, Chemical (COD)     | 9      | mg/L     |            | 5      |             | E410.4     | 06/28/12 10:00 / bls |
| <b>NUTRIENTS</b>                  |        |          |            |        |             |            |                      |
| Nitrogen, Nitrate+Nitrite as N    | 11.5   | mg/L     | D          | 0.06   |             | E353.2     | 06/28/12 10:33 / bls |
| <b>METALS, DISSOLVED</b>          |        |          |            |        |             |            |                      |
| Antimony                          | ND     | mg/L     |            | 0.005  |             | SW6020     | 06/27/12 16:19 / car |
| Arsenic                           | ND     | mg/L     |            | 0.005  |             | SW6020     | 06/27/12 16:19 / car |
| Barium                            | ND     | mg/L     |            | 0.1    |             | SW6010B    | 06/27/12 15:20 / rlh |
| Beryllium                         | ND     | mg/L     |            | 0.001  |             | SW6020     | 06/27/12 16:19 / car |
| Cadmium                           | ND     | mg/L     |            | 0.001  |             | SW6010B    | 06/27/12 15:20 / rlh |
| Chromium                          | ND     | mg/L     |            | 0.01   |             | SW6010B    | 06/27/12 15:20 / rlh |
| Cobalt                            | ND     | mg/L     |            | 0.01   |             | SW6010B    | 06/27/12 15:20 / rlh |
| Copper                            | ND     | mg/L     |            | 0.01   |             | SW6010B    | 06/27/12 15:20 / rlh |
| Iron                              | 1.00   | mg/L     |            | 0.03   |             | SW6010B    | 06/27/12 15:20 / rlh |
| Lead                              | ND     | mg/L     |            | 0.01   |             | SW6020     | 06/27/12 16:19 / car |
| Mercury                           | ND     | mg/L     |            | 0.0001 |             | SW7470A    | 07/03/12 13:05 / ksm |
| Nickel                            | ND     | mg/L     |            | 0.01   |             | SW6010B    | 06/27/12 15:20 / rlh |
| Selenium                          | 0.022  | mg/L     |            | 0.005  |             | SW6020     | 06/27/12 16:19 / car |
| Silver                            | ND     | mg/L     |            | 0.005  |             | SW6010B    | 06/27/12 15:20 / rlh |
| Thallium                          | ND     | mg/L     |            | 0.005  |             | SW6020     | 06/27/12 16:19 / car |
| Vanadium                          | ND     | mg/L     |            | 0.1    |             | SW6010B    | 06/27/12 15:20 / rlh |
| Zinc                              | 0.01   | mg/L     |            | 0.01   |             | SW6010B    | 06/27/12 15:20 / rlh |
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |          |            |        |             |            |                      |
| Acetone                           | ND     | ug/L     |            | 20     |             | SW8260B    | 07/02/12 17:36 / nl  |
| Acrylonitrile                     | ND     | ug/L     |            | 20     |             | SW8260B    | 07/02/12 17:36 / nl  |
| Benzene                           | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 17:36 / nl  |
| Bromochloromethane                | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 17:36 / nl  |
| Bromodichloromethane              | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 17:36 / nl  |
| Bromoform                         | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 17:36 / nl  |
| Bromomethane                      | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 17:36 / nl  |
| Carbon disulfide                  | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 17:36 / nl  |

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
D - RL increased due to sample matrix.  
L - Lowest available reporting limit for the analytical method used.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
H - Analysis performed past recommended holding time.

## LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

**Client:** Barry Damschen  
**Project:** Sanitation Inc. Closed Landfill  
**Lab ID:** B12062268-002  
**Client Sample ID** SIMW-3

**Report Date:** 07/09/12  
**Collection Date:** 06/25/12 15:00  
**Date Received:** 06/26/12  
**Matrix:** Ground Water

| Analyses                          | Result | Units    | Qualifiers | RL     | MCL/<br>QCL | Method     | Analysis Date / By   |
|-----------------------------------|--------|----------|------------|--------|-------------|------------|----------------------|
| <b>PHYSICAL PROPERTIES</b>        |        |          |            |        |             |            |                      |
| pH                                | 7.1    | s.u.     | H          | 0.1    |             | A4500-H B  | 06/26/12 17:28 / rjb |
| Conductivity @ 25 C               | 1300   | umhos/cm | L          | 5      |             | A2510 B    | 06/26/12 17:28 / rjb |
| <b>INORGANICS</b>                 |        |          |            |        |             |            |                      |
| Chloride                          | 36     | mg/L     |            | 1      |             | E300.0     | 06/28/12 17:15 / jrs |
| Sulfate                           | 199    | mg/L     |            | 1      |             | E300.0     | 06/28/12 17:15 / jrs |
| Cyanide, Total                    | ND     | mg/L     |            | 0.005  |             | Kelada mod | 06/29/12 11:26 / hab |
| <b>AGGREGATE ORGANICS</b>         |        |          |            |        |             |            |                      |
| Oxygen Demand, Chemical (COD)     | 9      | mg/L     |            | 5      |             | E410.4     | 06/28/12 10:00 / bls |
| <b>NUTRIENTS</b>                  |        |          |            |        |             |            |                      |
| Nitrogen, Nitrate+Nitrite as N    | 11.5   | mg/L     | D          | 0.06   |             | E353.2     | 06/28/12 10:32 / bls |
| <b>METALS, DISSOLVED</b>          |        |          |            |        |             |            |                      |
| Antimony                          | ND     | mg/L     |            | 0.005  |             | SW6020     | 06/27/12 16:17 / car |
| Arsenic                           | ND     | mg/L     |            | 0.005  |             | SW6020     | 06/27/12 16:17 / car |
| Barium                            | ND     | mg/L     |            | 0.1    |             | SW6010B    | 06/27/12 15:16 / rjh |
| Beryllium                         | ND     | mg/L     |            | 0.001  |             | SW6020     | 06/27/12 16:17 / car |
| Cadmium                           | ND     | mg/L     |            | 0.001  |             | SW6010B    | 06/27/12 15:16 / rjh |
| Chromium                          | ND     | mg/L     |            | 0.01   |             | SW6010B    | 06/27/12 15:16 / rjh |
| Cobalt                            | ND     | mg/L     |            | 0.01   |             | SW6010B    | 06/27/12 15:16 / rjh |
| Copper                            | ND     | mg/L     |            | 0.01   |             | SW6010B    | 06/27/12 15:16 / rjh |
| Iron                              | 0.71   | mg/L     |            | 0.03   |             | SW6010B    | 06/27/12 15:16 / rjh |
| Lead                              | ND     | mg/L     |            | 0.01   |             | SW6020     | 06/27/12 16:17 / car |
| Mercury                           | ND     | mg/L     |            | 0.0001 |             | SW7470A    | 07/03/12 13:03 / ksm |
| Nickel                            | ND     | mg/L     |            | 0.01   |             | SW6010B    | 06/27/12 15:16 / rjh |
| Selenium                          | 0.023  | mg/L     |            | 0.005  |             | SW6020     | 06/27/12 16:17 / car |
| Silver                            | ND     | mg/L     |            | 0.005  |             | SW6010B    | 06/27/12 15:16 / rjh |
| Thallium                          | ND     | mg/L     |            | 0.005  |             | SW6020     | 06/27/12 16:17 / car |
| Vanadium                          | ND     | mg/L     |            | 0.1    |             | SW6010B    | 06/27/12 15:16 / rjh |
| Zinc                              | 0.01   | mg/L     |            | 0.01   |             | SW6010B    | 06/27/12 15:16 / rjh |
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |          |            |        |             |            |                      |
| Acetone                           | ND     | ug/L     |            | 20     |             | SW8260B    | 07/02/12 17:06 / nl  |
| Acrylonitrile                     | ND     | ug/L     |            | 20     |             | SW8260B    | 07/02/12 17:06 / nl  |
| Benzene                           | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 17:06 / nl  |
| Bromochloromethane                | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 17:06 / nl  |
| Bromodichloromethane              | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 17:06 / nl  |
| Bromoform                         | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 17:06 / nl  |
| Bromomethane                      | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 17:06 / nl  |
| Carbon disulfide                  | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 17:06 / nl  |

**Report** RL - Analyte reporting limit.

**Definitions:** QCL - Quality control limit.

D - RL increased due to sample matrix.

L - Lowest available reporting limit for the analytical method used.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

H - Analysis performed past recommended holding time.



## LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

**Client:** Barry Damschen  
**Project:** Sanitation Inc. Closed Landfill  
**Lab ID:** B12062268-002  
**Client Sample ID** SIMW-3

**Report Date:** 07/09/12  
**Collection Date:** 06/25/12 15:00  
**Date Received:** 06/26/12  
**Matrix:** Ground Water

| Analyses                          | Result | Units | Qualifiers | RL     | MCL/<br>QCL | Method  | Analysis Date / By  |
|-----------------------------------|--------|-------|------------|--------|-------------|---------|---------------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |       |            |        |             |         |                     |
| Carbon tetrachloride              | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| Chlorobenzene                     | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| Chlorodibromomethane              | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| Chloroethane                      | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| Chloroform                        | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| Chloromethane                     | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| 1,2-Dibromo-3-chloropropane       | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| 1,2-Dibromoethane                 | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| Dibromomethane                    | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| 1,2-Dichlorobenzene               | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| 1,4-Dichlorobenzene               | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| trans-1,4-Dichloro-2-butene       | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| Dichlorodifluoromethane           | 0.17   | ug/L  | J          | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| 1,1-Dichloroethane                | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| 1,2-Dichloroethane                | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| 1,1-Dichloroethene                | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| cis-1,2-Dichloroethene            | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| trans-1,2-Dichloroethene          | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| 1,2-Dichloropropane               | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| cis-1,3-Dichloropropene           | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| trans-1,3-Dichloropropene         | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| Ethylbenzene                      | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| 2-Hexanone                        | ND     | ug/L  |            | 20     |             | SW8260B | 07/02/12 17:06 / nl |
| Iodomethane                       | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| Methyl ethyl ketone               | ND     | ug/L  |            | 20     |             | SW8260B | 07/02/12 17:06 / nl |
| Methyl isobutyl ketone            | ND     | ug/L  |            | 20     |             | SW8260B | 07/02/12 17:06 / nl |
| Methylene chloride                | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| Styrene                           | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| 1,1,1,2-Tetrachloroethane         | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| 1,1,2,2-Tetrachloroethane         | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| Tetrachloroethene                 | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| Toluene                           | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| 1,1,1-Trichloroethane             | 0.42   | ug/L  | J          | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| 1,1,2-Trichloroethane             | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| Trichloroethene                   | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| Trichlorofluoromethane            | 0.91   | ug/L  | J          | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| 1,2,3-Trichloropropane            | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| Vinyl acetate                     | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| Vinyl chloride                    | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| m+p-Xylenes                       | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| o-Xylene                          | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| Xylenes, Total                    | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:06 / nl |
| Surr: 1,2-Dichloroethane-d4       | 113    | %REC  |            | 70-130 |             | SW8260B | 07/02/12 17:06 / nl |

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.

J - Estimated value. The analyte was present but less than the reporting limit.

## LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

**Client:** Barry Damschen  
**Project:** Sanitation Inc. Closed Landfill  
**Lab ID:** B12062268-003  
**Client Sample ID:** SIMW-3D

**Report Date:** 07/09/12  
**Collection Date:** 06/25/12 15:00  
**Date Received:** 06/26/12  
**Matrix:** Ground Water

| Analyses                          | Result | Units | Qualifiers | RL     | MCL/<br>QCL | Method  | Analysis Date / By  |
|-----------------------------------|--------|-------|------------|--------|-------------|---------|---------------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |       |            |        |             |         |                     |
| Carbon tetrachloride              | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| Chlorobenzene                     | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| Chlorodibromomethane              | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| Chloroethane                      | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| Chloroform                        | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| Chloromethane                     | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| 1,2-Dibromo-3-chloropropane       | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| 1,2-Dibromoethane                 | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| Dibromomethane                    | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| 1,2-Dichlorobenzene               | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| 1,4-Dichlorobenzene               | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| trans-1,4-Dichloro-2-butene       | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| Dichlorodifluoromethane           | 0.17   | ug/L  | J          | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| 1,1-Dichloroethane                | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| 1,2-Dichloroethane                | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| 1,1-Dichloroethene                | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| cis-1,2-Dichloroethene            | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| trans-1,2-Dichloroethene          | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| 1,2-Dichloropropane               | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| cis-1,3-Dichloropropene           | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| trans-1,3-Dichloropropene         | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| Ethylbenzene                      | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| 2-Hexanone                        | ND     | ug/L  |            | 20     |             | SW8260B | 07/02/12 17:36 / nl |
| Iodomethane                       | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| Methyl ethyl ketone               | ND     | ug/L  |            | 20     |             | SW8260B | 07/02/12 17:36 / nl |
| Methyl isobutyl ketone            | ND     | ug/L  |            | 20     |             | SW8260B | 07/02/12 17:36 / nl |
| Methylene chloride                | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| Styrene                           | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| 1,1,1,2-Tetrachloroethane         | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| 1,1,2,2-Tetrachloroethane         | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| Tetrachloroethene                 | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| Toluene                           | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| 1,1,1-Trichloroethane             | 0.44   | ug/L  | J          | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| 1,1,2-Trichloroethane             | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| Trichloroethene                   | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| Trichlorofluoromethane            | 0.94   | ug/L  | J          | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| 1,2,3-Trichloropropane            | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| Vinyl acetate                     | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| Vinyl chloride                    | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| m-p-Xylenes                       | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| o-Xylene                          | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| Xylenes, Total                    | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 17:36 / nl |
| Surr: 1,2-Dichloroethane-d4       | 114    | %REC  |            | 70-130 |             | SW8260B | 07/02/12 17:36 / nl |

**Report** RL - Analyte reporting limit. MCL - Maximum contaminant level.  
**Definitions:** QCL - Quality control limit. ND - Not detected at the reporting limit.  
J - Estimated value. The analyte was present but less than the reporting limit.



## LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Barry Damschen  
Project: Sanitation Inc. Closed Landfill  
Lab ID: B12062268-003  
Client Sample ID SIMW-3D

Report Date: 07/09/12  
Collection Date: 06/25/12 15:00  
DateReceived: 06/26/12  
Matrix: Ground Water

| Analyses                          | Result | Units | Qualifiers | RL     | MCL/<br>QCL | Method  | Analysis Date / By  |
|-----------------------------------|--------|-------|------------|--------|-------------|---------|---------------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |       |            |        |             |         |                     |
| Surr: Dibromofluoromethane        | 114    | %REC  |            | 77-126 |             | SW8260B | 07/02/12 17:36 / nl |
| Surr: p-Bromofluorobenzene        | 112    | %REC  |            | 76-127 |             | SW8260B | 07/02/12 17:36 / nl |
| Surr: Toluene-d8                  | 104    | %REC  |            | 79-122 |             | SW8260B | 07/02/12 17:36 / nl |

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.

**LABORATORY ANALYTICAL REPORT**

Prepared by Billings, MT Branch

**Client:** Barry Damschen  
**Project:** Sanitation Inc. Closed Landfill  
**Lab ID:** B12062268-004  
**Client Sample ID** SIMW-4

**Report Date:** 07/09/12  
**Collection Date:** 06/25/12 15:45  
**Date Received:** 06/26/12  
**Matrix:** Ground Water

| Analyses                          | Result | Units    | Qualifiers | RL     | MCL/<br>QCL | Method     | Analysis Date / By   |
|-----------------------------------|--------|----------|------------|--------|-------------|------------|----------------------|
| <b>PHYSICAL PROPERTIES</b>        |        |          |            |        |             |            |                      |
| pH                                | 6.9    | s.u.     | H          | 0.1    |             | A4500-H B  | 06/26/12 17:37 / rjb |
| Conductivity @ 25 C               | 2640   | umhos/cm | L          | 5      |             | A2510 B    | 06/26/12 17:37 / rjb |
| <b>INORGANICS</b>                 |        |          |            |        |             |            |                      |
| Chloride                          | 202    | mg/L     | D          | 2      |             | E300.0     | 06/28/12 17:45 / jrs |
| Sulfate                           | 121    | mg/L     | D          | 10     |             | E300.0     | 06/28/12 17:45 / jrs |
| Cyanide, Total                    | ND     | mg/L     |            | 0.005  |             | Kelada mod | 06/29/12 11:29 / hab |
| <b>AGGREGATE ORGANICS</b>         |        |          |            |        |             |            |                      |
| Oxygen Demand, Chemical (COD)     | 94     | mg/L     |            | 5      |             | E410.4     | 06/28/12 10:00 / bls |
| <b>NUTRIENTS</b>                  |        |          |            |        |             |            |                      |
| Nitrogen, Nitrate+Nitrite as N    | 0.36   | mg/L     |            | 0.01   |             | E353.2     | 06/28/12 10:35 / bls |
| <b>METALS, DISSOLVED</b>          |        |          |            |        |             |            |                      |
| Antimony                          | ND     | mg/L     |            | 0.005  |             | SW6020     | 06/27/12 16:22 / car |
| Arsenic                           | ND     | mg/L     |            | 0.005  |             | SW6020     | 06/27/12 16:22 / car |
| Barium                            | ND     | mg/L     |            | 0.1    |             | SW6010B    | 06/27/12 15:24 / rjh |
| Beryllium                         | ND     | mg/L     |            | 0.001  |             | SW6020     | 06/27/12 16:22 / car |
| Cadmium                           | ND     | mg/L     |            | 0.001  |             | SW6020     | 06/27/12 16:22 / car |
| Chromium                          | ND     | mg/L     |            | 0.01   |             | SW6010B    | 06/27/12 15:24 / rjh |
| Cobalt                            | ND     | mg/L     |            | 0.01   |             | SW6010B    | 06/27/12 15:24 / rjh |
| Copper                            | ND     | mg/L     |            | 0.01   |             | SW6020     | 06/27/12 16:22 / car |
| Iron                              | ND     | mg/L     |            | 0.03   |             | SW6010B    | 06/27/12 15:24 / rjh |
| Lead                              | ND     | mg/L     |            | 0.01   |             | SW6020     | 06/27/12 16:22 / car |
| Mercury                           | ND     | mg/L     |            | 0.0001 |             | SW7470A    | 07/03/12 13:06 / ksm |
| Nickel                            | 0.05   | mg/L     |            | 0.01   |             | SW6020     | 06/27/12 16:22 / car |
| Selenium                          | ND     | mg/L     |            | 0.005  |             | SW6020     | 06/27/12 16:22 / car |
| Silver                            | ND     | mg/L     |            | 0.005  |             | SW6020     | 06/27/12 16:22 / car |
| Thallium                          | ND     | mg/L     |            | 0.005  |             | SW6020     | 06/27/12 16:22 / car |
| Vanadium                          | ND     | mg/L     |            | 0.1    |             | SW6010B    | 06/27/12 15:24 / rjh |
| Zinc                              | 0.03   | mg/L     |            | 0.01   |             | SW6010B    | 06/27/12 15:24 / rjh |
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |          |            |        |             |            |                      |
| Acetone                           | 7.5    | ug/L     | J          | 20     |             | SW8260B    | 07/02/12 18:06 / nl  |
| Acrylonitrile                     | ND     | ug/L     |            | 20     |             | SW8260B    | 07/02/12 18:06 / nl  |
| Benzene                           | 0.54   | ug/L     | J          | 1.0    |             | SW8260B    | 07/02/12 18:06 / nl  |
| Bromochloromethane                | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 18:06 / nl  |
| Bromodichloromethane              | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 18:06 / nl  |
| Bromoform                         | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 18:06 / nl  |
| Bromomethane                      | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 18:06 / nl  |
| Carbon disulfide                  | ND     | ug/L     |            | 1.0    |             | SW8260B    | 07/02/12 18:06 / nl  |

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
D - RL increased due to sample matrix.  
J - Estimated value. The analyte was present but less than the reporting limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
H - Analysis performed past recommended holding time.  
L - Lowest available reporting limit for the analytical method us



## LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

**Client:** Barry Damschen  
**Project:** Sanitation Inc. Closed Landfill  
**Lab ID:** B12062268-004  
**Client Sample ID** SIMW-4

**Report Date:** 07/09/12  
**Collection Date:** 06/25/12 15:45  
**Date Received:** 06/26/12  
**Matrix:** Ground Water

| Analyses                          | Result | Units | Qualifiers | RL     | MCL/<br>QCL | Method  | Analysis Date / By  |
|-----------------------------------|--------|-------|------------|--------|-------------|---------|---------------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |       |            |        |             |         |                     |
| Carbon tetrachloride              | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| Chlorobenzene                     | 0.78   | ug/L  | J          | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| Chlorodibromomethane              | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| Chloroethane                      | 0.73   | ug/L  | J          | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| Chloroform                        | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| Chloromethane                     | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| 1,2-Dibromo-3-chloropropane       | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| 1,2-Dibromoethane                 | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| Dibromomethane                    | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| 1,2-Dichlorobenzene               | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| 1,4-Dichlorobenzene               | 0.60   | ug/L  | J          | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| trans-1,4-Dichloro-2-butene       | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| Dichlorodifluoromethane           | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| 1,1-Dichloroethane                | 0.36   | ug/L  | J          | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| 1,2-Dichloroethane                | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| 1,1-Dichloroethene                | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| cis-1,2-Dichloroethene            | 0.14   | ug/L  | J          | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| trans-1,2-Dichloroethene          | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| 1,2-Dichloropropane               | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| cis-1,3-Dichloropropene           | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| trans-1,3-Dichloropropene         | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| Ethylbenzene                      | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| 2-Hexanone                        | ND     | ug/L  |            | 20     |             | SW8260B | 07/02/12 18:06 / nl |
| Iodomethane                       | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| Methyl ethyl ketone               | ND     | ug/L  |            | 20     |             | SW8260B | 07/02/12 18:06 / nl |
| Methyl isobutyl ketone            | ND     | ug/L  |            | 20     |             | SW8260B | 07/02/12 18:06 / nl |
| Methylene chloride                | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| Styrene                           | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| 1,1,1,2-Tetrachloroethane         | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| 1,1,2,2-Tetrachloroethane         | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| Tetrachloroethene                 | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| Toluene                           | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| 1,1,1-Trichloroethane             | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| 1,1,2-Trichloroethane             | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| Trichloroethene                   | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| Trichlorofluoromethane            | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| 1,2,3-Trichloropropane            | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| Vinyl acetate                     | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| Vinyl chloride                    | 0.21   | ug/L  | J          | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| m+p-Xylenes                       | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| o-Xylene                          | 0.31   | ug/L  | J          | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| Xylenes, Total                    | 0.31   | ug/L  | J          | 1.0    |             | SW8260B | 07/02/12 18:06 / nl |
| Surr: 1,2-Dichloroethane-d4       | 116    | %REC  |            | 70-130 |             | SW8260B | 07/02/12 18:06 / nl |

**Report** RL - Analyte reporting limit.

**Definitions:** QCL - Quality control limit.

J - Estimated value. The analyte was present but less than the reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Prepared by Billings, MT Branch

Report Date: 07/09/12  
Collection Date: 06/25/12 15:45  
DateReceived: 06/26/12  
Matrix: Ground Water

| Analyses                          | Result | Units | Qualifiers | RL     | MCL/<br>QCL | Method  | Analysis Date / By  |
|-----------------------------------|--------|-------|------------|--------|-------------|---------|---------------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |       |            |        |             |         |                     |
| Surr: Dibromofluoromethane        | 115    | %REC  |            | 77-126 |             | SW8260B | 07/02/12 18:06 / nl |
| Surr: p-Bromofluorobenzene        | 109    | %REC  |            | 76-127 |             | SW8260B | 07/02/12 18:06 / nl |
| Surr: Toluene-d8                  | 106    | %REC  |            | 79-122 |             | SW8260B | 07/02/12 18:06 / nl |

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



## LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

**Client:** Barry Damschen  
**Project:** Sanitation Inc. Closed Landfill  
**Lab ID:** B12062268-005  
**Client Sample ID** Trip Blank 062012 KK HCL0256

**Report Date:** 07/09/12  
**Collection Date:** 06/25/12 14:30  
**Date Received:** 06/26/12  
**Matrix:** Trip Blank

| Analyses                          | Result | Units | Qualifiers | RL  | MCL/<br>QCL | Method  | Analysis Date / By  |
|-----------------------------------|--------|-------|------------|-----|-------------|---------|---------------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |       |            |     |             |         |                     |
| Acetone                           | ND     | ug/L  |            | 20  |             | SW8260B | 07/01/12 18:27 / nl |
| Acrylonitrile                     | ND     | ug/L  |            | 20  |             | SW8260B | 07/01/12 18:27 / nl |
| Benzene                           | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| Bromochloromethane                | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| Bromodichloromethane              | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| Bromoform                         | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| Bromomethane                      | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| Carbon disulfide                  | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| Carbon tetrachloride              | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| Chlorobenzene                     | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| Chlorodibromomethane              | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| Chloroethane                      | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| Chloroform                        | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| Chloromethane                     | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| 1,2-Dibromo-3-chloropropane       | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| 1,2-Dibromoethane                 | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| Dibromomethane                    | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| 1,2-Dichlorobenzene               | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| 1,4-Dichlorobenzene               | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| trans-1,4-Dichloro-2-butene       | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| Dichlorodifluoromethane           | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| 1,1-Dichloroethane                | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| 1,2-Dichloroethane                | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| 1,1-Dichloroethene                | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| cis-1,2-Dichloroethene            | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| trans-1,2-Dichloroethene          | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| 1,2-Dichloropropane               | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| cis-1,3-Dichloropropene           | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| trans-1,3-Dichloropropene         | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| Ethylbenzene                      | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| 2-Hexanone                        | ND     | ug/L  |            | 20  |             | SW8260B | 07/01/12 18:27 / nl |
| Iodomethane                       | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| Methyl ethyl ketone               | ND     | ug/L  |            | 20  |             | SW8260B | 07/01/12 18:27 / nl |
| Methyl isobutyl ketone            | ND     | ug/L  |            | 20  |             | SW8260B | 07/01/12 18:27 / nl |
| Methylene chloride                | 0.36   | ug/L  | J          | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| Styrene                           | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| 1,1,1,2-Tetrachloroethane         | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| 1,1,2,2-Tetrachloroethane         | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| Tetrachloroethene                 | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| Toluene                           | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| 1,1,1-Trichloroethane             | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| 1,1,2-Trichloroethane             | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |
| Trichloroethene                   | ND     | ug/L  |            | 1.0 |             | SW8260B | 07/01/12 18:27 / nl |

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.

J - Estimated value. The analyte was present but less than the reporting limit.

## LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

**Client:** Barry Damschen  
**Project:** Sanitation Inc. Closed Landfill  
**Lab ID:** B12062268-005  
**Client Sample ID** Trip Blank 062012 KK HCL0256

**Report Date:** 07/09/12  
**Collection Date:** 06/25/12 14:30  
**Date Received:** 06/26/12  
**Matrix:** Trip Blank

| Analyses                          | Result | Units | Qualifiers | RL     | MCL/<br>QCL | Method  | Analysis Date / By  |
|-----------------------------------|--------|-------|------------|--------|-------------|---------|---------------------|
| <b>VOLATILE ORGANIC COMPOUNDS</b> |        |       |            |        |             |         |                     |
| Trichlorofluoromethane            | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/01/12 18:27 / nl |
| 1,2,3-Trichloropropane            | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/01/12 18:27 / nl |
| Vinyl acetate                     | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/01/12 18:27 / nl |
| Vinyl chloride                    | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/01/12 18:27 / nl |
| m+p-Xylenes                       | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/01/12 18:27 / nl |
| o-Xylene                          | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/01/12 18:27 / nl |
| Xylenes, Total                    | ND     | ug/L  |            | 1.0    |             | SW8260B | 07/01/12 18:27 / nl |
| Surr: 1,2-Dichloroethane-d4       | 112    | %REC  |            | 70-130 |             | SW8260B | 07/01/12 18:27 / nl |
| Surr: Dibromofluoromethane        | 114    | %REC  |            | 77-126 |             | SW8260B | 07/01/12 18:27 / nl |
| Surr: p-Bromofluorobenzene        | 111    | %REC  |            | 76-127 |             | SW8260B | 07/01/12 18:27 / nl |
| Surr: Toluene-d8                  | 106    | %REC  |            | 79-122 |             | SW8260B | 07/01/12 18:27 / nl |

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Barry Damschen

Report Date: 07/09/12

Project: Sanitation Inc. Closed Landfill

Work Order: B12062268

| Analyte                             | Count | Result                                       | Units | RL     | %REC | Low Limit | High Limit | RPD | RPDLimit | Qual           |
|-------------------------------------|-------|----------------------------------------------|-------|--------|------|-----------|------------|-----|----------|----------------|
| <b>Method:</b> SW6010B              |       | Analytical Run: ICP203-B_120627B             |       |        |      |           |            |     |          |                |
| <b>Sample ID:</b> QCS               |       | 10 Initial Calibration Verification Standard |       |        |      |           |            |     |          | 06/27/12 14:15 |
| Barium                              |       | 0.792                                        | mg/L  | 0.10   | 99   | 90        | 110        |     |          |                |
| Cadmium                             |       | 0.383                                        | mg/L  | 0.010  | 96   | 90        | 110        |     |          |                |
| Chromium                            |       | 0.770                                        | mg/L  | 0.050  | 96   | 90        | 110        |     |          |                |
| Cobalt                              |       | 0.772                                        | mg/L  | 0.020  | 97   | 90        | 110        |     |          |                |
| Copper                              |       | 0.772                                        | mg/L  | 0.010  | 96   | 90        | 110        |     |          |                |
| Iron                                |       | 4.04                                         | mg/L  | 0.030  | 101  | 90        | 110        |     |          |                |
| Nickel                              |       | 0.760                                        | mg/L  | 0.050  | 95   | 90        | 110        |     |          |                |
| Silver                              |       | 0.376                                        | mg/L  | 0.010  | 94   | 90        | 110        |     |          |                |
| Vanadium                            |       | 0.801                                        | mg/L  | 0.10   | 100  | 90        | 110        |     |          |                |
| Zinc                                |       | 0.790                                        | mg/L  | 0.010  | 99   | 90        | 110        |     |          |                |
| <b>Sample ID:</b> ICSA              |       | 10 Interference Check Sample A               |       |        |      |           |            |     |          | 06/27/12 14:30 |
| Barium                              |       | 0.00126                                      | mg/L  | 0.10   |      | 0         | 0          |     |          |                |
| Cadmium                             |       | 0.00759                                      | mg/L  | 0.010  |      | 0         | 0          |     |          |                |
| Chromium                            |       | 0.0163                                       | mg/L  | 0.050  |      | 0         | 0          |     |          |                |
| Cobalt                              |       | 0.000440                                     | mg/L  | 0.020  |      | 0         | 0          |     |          |                |
| Copper                              |       | 0.00104                                      | mg/L  | 0.010  |      | 0         | 0          |     |          |                |
| Iron                                |       | 180                                          | mg/L  | 0.030  | 90   | 80        | 120        |     |          |                |
| Nickel                              |       | -0.00131                                     | mg/L  | 0.050  |      | 0         | 0          |     |          |                |
| Silver                              |       | -0.000150                                    | mg/L  | 0.010  |      | 0         | 0          |     |          |                |
| Vanadium                            |       | 0.00196                                      | mg/L  | 0.10   |      | 0         | 0          |     |          |                |
| Zinc                                |       | 0.00972                                      | mg/L  | 0.010  |      | 0         | 0          |     |          |                |
| <b>Sample ID:</b> ICSAB             |       | 10 Interference Check Sample AB              |       |        |      |           |            |     |          | 06/27/12 14:34 |
| Barium                              |       | 0.465                                        | mg/L  | 0.10   | 93   | 80        | 120        |     |          |                |
| Cadmium                             |       | 0.847                                        | mg/L  | 0.010  | 85   | 80        | 120        |     |          |                |
| Chromium                            |       | 0.446                                        | mg/L  | 0.050  | 89   | 80        | 120        |     |          |                |
| Cobalt                              |       | 0.428                                        | mg/L  | 0.020  | 86   | 80        | 120        |     |          |                |
| Copper                              |       | 0.458                                        | mg/L  | 0.010  | 92   | 80        | 120        |     |          |                |
| Iron                                |       | 176                                          | mg/L  | 0.030  | 88   | 80        | 120        |     |          |                |
| Nickel                              |       | 0.828                                        | mg/L  | 0.050  | 83   | 80        | 120        |     |          |                |
| Silver                              |       | 0.948                                        | mg/L  | 0.010  | 95   | 80        | 120        |     |          |                |
| Vanadium                            |       | 0.454                                        | mg/L  | 0.10   | 91   | 80        | 120        |     |          |                |
| Zinc                                |       | 0.917                                        | mg/L  | 0.010  | 92   | 80        | 120        |     |          |                |
| <b>Method:</b> SW6010B              |       | Batch: R187558                               |       |        |      |           |            |     |          |                |
| <b>Sample ID:</b> B12062268-001BDIL |       | 10 Serial Dilution                           |       |        |      |           |            |     |          |                |
|                                     |       | Run: ICP203-B_120627B                        |       |        |      |           |            |     |          | 06/27/12 14:57 |
| Barium                              |       | 0.0325                                       | mg/L  | 0.050  |      | 0         | 0          |     |          | 10 N           |
| Cadmium                             |       | ND                                           | mg/L  | 0.0020 |      | 0         | 0          |     |          | 10             |
| Chromium                            |       | ND                                           | mg/L  | 0.0060 |      | 0         | 0          |     |          | 10             |
| Cobalt                              |       | 0.0157                                       | mg/L  | 0.0080 |      | 0         | 0          |     |          | 10 N           |
| Copper                              |       | ND                                           | mg/L  | 0.050  |      | 0         | 0          |     |          | 10             |
| Iron                                |       | ND                                           | mg/L  | 0.030  |      | 0         | 0          |     |          | 10             |
| Nickel                              |       | ND                                           | mg/L  | 0.020  |      | 0         | 0          |     |          | 10             |
| Silver                              |       | ND                                           | mg/L  | 0.020  |      | 0         | 0          |     |          | 10             |

## Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

N - The analyte concentration was not sufficiently high to calculate a RPD for the serial dilution test.



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Barry Damschen

Report Date: 07/09/12

Project: Sanitation Inc. Closed Landfill

Work Order: B12062268

| Analyte                              | Count | Result                        | Units | RL     | %REC | Low Limit | High Limit            | RPD | RPDLimit | Qual           |
|--------------------------------------|-------|-------------------------------|-------|--------|------|-----------|-----------------------|-----|----------|----------------|
| <b>Method: SW6010B</b>               |       |                               |       |        |      |           |                       |     |          | Batch: R187558 |
| <b>Sample ID: B12062268-001BDIL</b>  | 10    | Serial Dilution               |       |        |      |           | Run: ICP203-B_120627B |     |          | 06/27/12 14:57 |
| Vanadium                             |       | ND                            | mg/L  | 0.030  |      | 0         | 0                     |     |          | 10             |
| Zinc                                 |       | 0.0158                        | mg/L  | 0.010  |      | 0         | 0                     |     |          | 10 N           |
| <b>Sample ID: B12062268-001BMS2</b>  | 10    | Sample Matrix Spike           |       |        |      |           | Run: ICP203-B_120627B |     |          | 06/27/12 15:00 |
| Barium                               |       | 2.04                          | mg/L  | 0.050  | 100  | 75        | 125                   |     |          |                |
| Cadmium                              |       | 0.960                         | mg/L  | 0.0010 | 96   | 75        | 125                   |     |          |                |
| Chromium                             |       | 1.95                          | mg/L  | 0.0050 | 98   | 75        | 125                   |     |          |                |
| Cobalt                               |       | 1.94                          | mg/L  | 0.0050 | 97   | 75        | 125                   |     |          |                |
| Copper                               |       | 1.97                          | mg/L  | 0.010  | 98   | 75        | 125                   |     |          |                |
| Iron                                 |       | 10.2                          | mg/L  | 0.030  | 102  | 75        | 125                   |     |          |                |
| Nickel                               |       | 1.91                          | mg/L  | 0.0050 | 95   | 75        | 125                   |     |          |                |
| Silver                               |       | 0.920                         | mg/L  | 0.0041 | 92   | 75        | 125                   |     |          |                |
| Vanadium                             |       | 2.04                          | mg/L  | 0.010  | 102  | 75        | 125                   |     |          |                |
| Zinc                                 |       | 2.03                          | mg/L  | 0.010  | 101  | 75        | 125                   |     |          |                |
| <b>Sample ID: B12062268-001BMSD2</b> | 10    | Sample Matrix Spike Duplicate |       |        |      |           | Run: ICP203-B_120627B |     |          | 06/27/12 15:04 |
| Barium                               |       | 2.05                          | mg/L  | 0.050  | 101  | 75        | 125                   | 0.3 |          | 20             |
| Cadmium                              |       | 0.951                         | mg/L  | 0.0010 | 95   | 75        | 125                   | 0.9 |          | 20             |
| Chromium                             |       | 1.94                          | mg/L  | 0.0050 | 97   | 75        | 125                   | 0.7 |          | 20             |
| Cobalt                               |       | 1.94                          | mg/L  | 0.0050 | 96   | 75        | 125                   | 0.3 |          | 20             |
| Copper                               |       | 1.96                          | mg/L  | 0.010  | 98   | 75        | 125                   | 0.1 |          | 20             |
| Iron                                 |       | 10.2                          | mg/L  | 0.030  | 102  | 75        | 125                   | 0.3 |          | 20             |
| Nickel                               |       | 1.89                          | mg/L  | 0.0050 | 95   | 75        | 125                   | 0.6 |          | 20             |
| Silver                               |       | 0.930                         | mg/L  | 0.0041 | 93   | 75        | 125                   | 1.0 |          | 20             |
| Vanadium                             |       | 2.04                          | mg/L  | 0.010  | 102  | 75        | 125                   | 0.3 |          | 20             |
| Zinc                                 |       | 2.02                          | mg/L  | 0.010  | 100  | 75        | 125                   | 0.2 |          | 20             |
| <b>Sample ID: MB-6500DIS120627B</b>  | 10    | Method Blank                  |       |        |      |           | Run: ICP203-B_120627B |     |          | 06/27/12 14:45 |
| Barium                               |       | 0.002                         | mg/L  | 0.0009 |      |           |                       |     |          |                |
| Cadmium                              |       | ND                            | mg/L  | 0.0006 |      |           |                       |     |          |                |
| Chromium                             |       | ND                            | mg/L  | 0.001  |      |           |                       |     |          |                |
| Cobalt                               |       | ND                            | mg/L  | 0.002  |      |           |                       |     |          |                |
| Copper                               |       | ND                            | mg/L  | 0.003  |      |           |                       |     |          |                |
| Iron                                 |       | 0.007                         | mg/L  | 0.003  |      |           |                       |     |          |                |
| Nickel                               |       | ND                            | mg/L  | 0.002  |      |           |                       |     |          |                |
| Silver                               |       | ND                            | mg/L  | 0.005  |      |           |                       |     |          |                |
| Vanadium                             |       | ND                            | mg/L  | 0.002  |      |           |                       |     |          |                |
| Zinc                                 |       | ND                            | mg/L  | 0.001  |      |           |                       |     |          |                |
| <b>Sample ID: LFB-6500DIS120627B</b> | 10    | Laboratory Fortified Blank    |       |        |      |           | Run: ICP203-B_120627B |     |          | 06/27/12 14:49 |
| Barium                               |       | 1.03                          | mg/L  | 0.10   | 103  | 85        | 115                   |     |          |                |
| Cadmium                              |       | 0.498                         | mg/L  | 0.010  | 100  | 85        | 115                   |     |          |                |
| Chromium                             |       | 1.01                          | mg/L  | 0.050  | 101  | 85        | 115                   |     |          |                |
| Cobalt                               |       | 1.01                          | mg/L  | 0.020  | 101  | 85        | 115                   |     |          |                |
| Copper                               |       | 1.01                          | mg/L  | 0.010  | 101  | 85        | 115                   |     |          |                |

## Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

N - The analyte concentration was not sufficiently high to calculate a RPD for the serial dilution test.

## QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Barry Damschen

Report Date: 07/09/12

Project: Sanitation Inc. Closed Landfill

Work Order: B12062268

| Analyte                                                     | Count | Result | Units | RL    | %REC | Low Limit | High Limit | RPD | RPDLimit | Qual                                 |
|-------------------------------------------------------------|-------|--------|-------|-------|------|-----------|------------|-----|----------|--------------------------------------|
| Method: SW6010B                                             |       |        |       |       |      |           |            |     |          | Batch: R187558                       |
| Sample ID: LFB-6500DIS120627B 10 Laboratory Fortified Blank |       |        |       |       |      |           |            |     |          | Run: ICP203-B_120627B 06/27/12 14:49 |
| Iron                                                        |       | 5.30   | mg/L  | 0.030 | 106  | 85        | 115        |     |          |                                      |
| Nickel                                                      |       | 0.990  | mg/L  | 0.050 | 99   | 85        | 115        |     |          |                                      |
| Silver                                                      |       | 0.473  | mg/L  | 0.010 | 95   | 85        | 115        |     |          |                                      |
| Vanadium                                                    |       | 1.04   | mg/L  | 0.10  | 104  | 85        | 115        |     |          |                                      |
| Zinc                                                        |       | 1.03   | mg/L  | 0.010 | 103  | 85        | 115        |     |          |                                      |

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Barry Damschen

Report Date: 07/09/12

Project: Sanitation Inc. Closed Landfill

Work Order: B12062268

| Analyte                             | Count | Result                                       | Units | RL     | %REC | Low Limit | High Limit | RPD | RPDLimit | Qual           |
|-------------------------------------|-------|----------------------------------------------|-------|--------|------|-----------|------------|-----|----------|----------------|
| <b>Method:</b> SW6020               |       | Analytical Run: ICPMS202-B_120627A           |       |        |      |           |            |     |          |                |
| <b>Sample ID:</b> QCS               |       | 10 Initial Calibration Verification Standard |       |        |      |           |            |     |          | 06/27/12 13:45 |
| Antimony                            |       | 0.0493                                       | mg/L  | 0.0010 | 99   | 90        | 110        |     |          |                |
| Arsenic                             |       | 0.0509                                       | mg/L  | 0.0010 | 102  | 90        | 110        |     |          |                |
| Beryllium                           |       | 0.0260                                       | mg/L  | 0.0010 | 104  | 90        | 110        |     |          |                |
| Cadmium                             |       | 0.0254                                       | mg/L  | 0.0010 | 101  | 90        | 110        |     |          |                |
| Copper                              |       | 0.0503                                       | mg/L  | 0.0010 | 101  | 90        | 110        |     |          |                |
| Lead                                |       | 0.0493                                       | mg/L  | 0.0010 | 99   | 90        | 110        |     |          |                |
| Nickel                              |       | 0.0500                                       | mg/L  | 0.0010 | 100  | 90        | 110        |     |          |                |
| Selenium                            |       | 0.0511                                       | mg/L  | 0.0010 | 102  | 90        | 110        |     |          |                |
| Silver                              |       | 0.0249                                       | mg/L  | 0.0010 | 100  | 90        | 110        |     |          |                |
| Thallium                            |       | 0.0497                                       | mg/L  | 0.0010 | 99   | 90        | 110        |     |          |                |
| <b>Sample ID:</b> ICSA              |       | 10 Interference Check Sample A               |       |        |      |           |            |     |          | 06/27/12 14:00 |
| Antimony                            |       | 0.000330                                     | mg/L  | 0.0010 |      |           |            |     |          |                |
| Arsenic                             |       | 2.00E-05                                     | mg/L  | 0.0010 |      |           |            |     |          |                |
| Beryllium                           |       | 3.00E-05                                     | mg/L  | 0.0010 |      |           |            |     |          |                |
| Cadmium                             |       | 0.000380                                     | mg/L  | 0.0010 |      |           |            |     |          |                |
| Copper                              |       | 0.00122                                      | mg/L  | 0.0010 |      |           |            |     |          |                |
| Lead                                |       | 0.000150                                     | mg/L  | 0.0010 |      |           |            |     |          |                |
| Nickel                              |       | 0.00302                                      | mg/L  | 0.0010 |      |           |            |     |          |                |
| Selenium                            |       | 0.000540                                     | mg/L  | 0.0010 |      |           |            |     |          |                |
| Silver                              |       | 0.000350                                     | mg/L  | 0.0010 |      |           |            |     |          |                |
| Thallium                            |       | 6.00E-05                                     | mg/L  | 0.0010 |      |           |            |     |          |                |
| <b>Sample ID:</b> ICSAB             |       | 10 Interference Check Sample AB              |       |        |      |           |            |     |          | 06/27/12 14:03 |
| Antimony                            |       | 0.000270                                     | mg/L  | 0.0010 |      | 0         | 0          |     |          |                |
| Arsenic                             |       | 0.0103                                       | mg/L  | 0.0010 | 103  | 70        | 130        |     |          |                |
| Beryllium                           |       | 4.00E-05                                     | mg/L  | 0.0010 |      | 0         | 0          |     |          |                |
| Cadmium                             |       | 0.0110                                       | mg/L  | 0.0010 | 109  | 70        | 130        |     |          |                |
| Copper                              |       | 0.0194                                       | mg/L  | 0.0010 | 97   | 70        | 130        |     |          |                |
| Lead                                |       | 0.000120                                     | mg/L  | 0.0010 |      | 0         | 0          |     |          |                |
| Nickel                              |       | 0.0212                                       | mg/L  | 0.0010 | 106  | 70        | 130        |     |          |                |
| Selenium                            |       | 0.0102                                       | mg/L  | 0.0010 | 102  | 70        | 130        |     |          |                |
| Silver                              |       | 0.0192                                       | mg/L  | 0.0010 | 96   | 70        | 130        |     |          |                |
| Thallium                            |       | 2.00E-05                                     | mg/L  | 0.0010 |      | 0         | 0          |     |          |                |
| <b>Method:</b> SW6020               |       | Batch: R187576                               |       |        |      |           |            |     |          |                |
| <b>Sample ID:</b> B12062268-001BDIL |       | 10 Serial Dilution                           |       |        |      |           |            |     |          | 06/27/12 16:14 |
|                                     |       | Run: ICPMS202-B_120627A                      |       |        |      |           |            |     |          |                |
| Antimony                            |       | ND                                           | mg/L  | 0.0010 |      | 0         | 0          |     |          | 10             |
| Arsenic                             |       | ND                                           | mg/L  | 0.0010 |      | 0         | 0          |     |          | 10             |
| Beryllium                           |       | ND                                           | mg/L  | 0.0010 |      | 0         | 0          |     |          | 10             |
| Cadmium                             |       | ND                                           | mg/L  | 0.0010 |      | 0         | 0          |     |          | 10             |
| Copper                              |       | 0.00110                                      | mg/L  | 0.0050 |      | 0         | 0          |     |          | 10 N           |
| Lead                                |       | ND                                           | mg/L  | 0.0010 |      | 0         | 0          |     |          | 10             |
| Nickel                              |       | 0.00410                                      | mg/L  | 0.0050 |      | 0         | 0          |     |          | 10 N           |
| Selenium                            |       | ND                                           | mg/L  | 0.0019 |      | 0         | 0          |     |          | 10             |

## Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

N - The analyte concentration was not sufficiently high to calculate a RPD for the serial dilution test.



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Barry Damschen

Report Date: 07/09/12

Project: Sanitation Inc. Closed Landfill

Work Order: B12062268

| Analyte                             | Count | Result                        | Units | RL      | %REC | Low Limit               | High Limit | RPD | RPDLimit | Qual           |
|-------------------------------------|-------|-------------------------------|-------|---------|------|-------------------------|------------|-----|----------|----------------|
| <b>Method: SW6020</b>               |       |                               |       |         |      |                         |            |     |          |                |
| Batch: R187576                      |       |                               |       |         |      |                         |            |     |          |                |
| <b>Sample ID: B12062268-001BDIL</b> | 10    | Serial Dilution               |       |         |      | Run: ICPMS202-B_120627A |            |     |          | 06/27/12 16:14 |
| Silver                              |       | 0.000400                      | mg/L  | 0.0010  |      | 0                       | 0          |     | 10       | N              |
| Thallium                            |       | 0.000200                      | mg/L  | 0.00050 |      | 0                       | 0          |     | 10       | N              |
| <b>Sample ID: B12062268-001BMS</b>  | 10    | Sample Matrix Spike           |       |         |      | Run: ICPMS202-B_120627A |            |     |          | 06/27/12 16:56 |
| Antimony                            |       | 0.102                         | mg/L  | 0.0010  | 102  | 75                      | 125        |     |          |                |
| Arsenic                             |       | 0.116                         | mg/L  | 0.0010  | 116  | 75                      | 125        |     |          |                |
| Beryllium                           |       | 0.108                         | mg/L  | 0.0010  | 108  | 75                      | 125        |     |          |                |
| Cadmium                             |       | 0.0995                        | mg/L  | 0.0010  | 99   | 75                      | 125        |     |          |                |
| Copper                              |       | 0.0972                        | mg/L  | 0.0050  | 96   | 75                      | 125        |     |          |                |
| Lead                                |       | 0.102                         | mg/L  | 0.0010  | 102  | 75                      | 125        |     |          |                |
| Nickel                              |       | 0.0973                        | mg/L  | 0.0050  | 97   | 75                      | 125        |     |          |                |
| Selenium                            |       | 0.122                         | mg/L  | 0.0010  | 121  | 75                      | 125        |     |          |                |
| Silver                              |       | 0.0369                        | mg/L  | 0.0010  | 92   | 75                      | 125        |     |          |                |
| Thallium                            |       | 0.102                         | mg/L  | 0.00050 | 102  | 75                      | 125        |     |          |                |
| <b>Sample ID: B12062268-001BMSD</b> | 10    | Sample Matrix Spike Duplicate |       |         |      | Run: ICPMS202-B_120627A |            |     |          | 06/27/12 16:59 |
| Antimony                            |       | 0.106                         | mg/L  | 0.0010  | 106  | 75                      | 125        | 3.5 | 20       |                |
| Arsenic                             |       | 0.120                         | mg/L  | 0.0010  | 120  | 75                      | 125        | 3.5 | 20       |                |
| Beryllium                           |       | 0.106                         | mg/L  | 0.0010  | 106  | 75                      | 125        | 1.8 | 20       |                |
| Cadmium                             |       | 0.103                         | mg/L  | 0.0010  | 103  | 75                      | 125        | 3.7 | 20       |                |
| Copper                              |       | 0.101                         | mg/L  | 0.0050  | 99   | 75                      | 125        | 3.9 | 20       |                |
| Lead                                |       | 0.104                         | mg/L  | 0.0010  | 104  | 75                      | 125        | 2.1 | 20       |                |
| Nickel                              |       | 0.102                         | mg/L  | 0.0050  | 102  | 75                      | 125        | 4.3 | 20       |                |
| Selenium                            |       | 0.130                         | mg/L  | 0.0010  | 128  | 75                      | 125        | 6.0 | 20       | S              |
| Silver                              |       | 0.0397                        | mg/L  | 0.0010  | 99   | 75                      | 125        | 7.3 | 20       |                |
| Thallium                            |       | 0.104                         | mg/L  | 0.00050 | 104  | 75                      | 125        | 2.2 | 20       |                |
| <b>Sample ID: LFB</b>               | 10    | Laboratory Fortified Blank    |       |         |      | Run: ICPMS202-B_120627A |            |     |          | 06/27/12 13:52 |
| Antimony                            |       | 0.0478                        | mg/L  | 0.0010  | 96   | 85                      | 115        |     |          |                |
| Arsenic                             |       | 0.0497                        | mg/L  | 0.0010  | 99   | 85                      | 115        |     |          |                |
| Beryllium                           |       | 0.0512                        | mg/L  | 0.0010  | 102  | 85                      | 115        |     |          |                |
| Cadmium                             |       | 0.0489                        | mg/L  | 0.0010  | 98   | 85                      | 115        |     |          |                |
| Copper                              |       | 0.0508                        | mg/L  | 0.0010  | 102  | 85                      | 115        |     |          |                |
| Lead                                |       | 0.0487                        | mg/L  | 0.0010  | 97   | 85                      | 115        |     |          |                |
| Nickel                              |       | 0.0500                        | mg/L  | 0.0010  | 100  | 85                      | 115        |     |          |                |
| Selenium                            |       | 0.0493                        | mg/L  | 0.0010  | 99   | 85                      | 115        |     |          |                |
| Silver                              |       | 0.0190                        | mg/L  | 0.0010  | 94   | 85                      | 115        |     |          |                |
| Thallium                            |       | 0.0483                        | mg/L  | 0.0010  | 97   | 85                      | 115        |     |          |                |
| <b>Sample ID: LRB</b>               | 10    | Method Blank                  |       |         |      | Run: ICPMS202-B_120627A |            |     |          | 06/27/12 14:13 |
| Antimony                            |       | ND                            | mg/L  | 8E-06   |      |                         |            |     |          |                |
| Arsenic                             |       | ND                            | mg/L  | 9E-05   |      |                         |            |     |          |                |
| Beryllium                           |       | ND                            | mg/L  | 4E-06   |      |                         |            |     |          |                |
| Cadmium                             |       | 5E-05                         | mg/L  | 6E-06   |      |                         |            |     |          |                |
| Copper                              |       | ND                            | mg/L  | 6E-05   |      |                         |            |     |          |                |

## Qualifiers:

RL - Analyte reporting limit.

N - The analyte concentration was not sufficiently high to calculate a RPD for the serial dilution test.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

## QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Barry Damschen

Report Date: 07/09/12

Project: Sanitation Inc. Closed Landfill

Work Order: B12062268

| Analyte        | Count | Result          | Units                   | RL      | %REC | Low Limit | High Limit | RPD | RPDLimit | Qual           |
|----------------|-------|-----------------|-------------------------|---------|------|-----------|------------|-----|----------|----------------|
| Method: SW6020 |       | Batch: R187576  |                         |         |      |           |            |     |          |                |
| Sample ID: LRB |       | 10 Method Blank | Run: ICPMS202-B_120627A |         |      |           |            |     |          | 06/27/12 14:13 |
| Lead           |       | ND              | mg/L                    | 9E-06   |      |           |            |     |          |                |
| Nickel         |       | ND              | mg/L                    | 4E-05   |      |           |            |     |          |                |
| Selenium       |       | ND              | mg/L                    | 0.0004  |      |           |            |     |          |                |
| Silver         |       | 0.0002          | mg/L                    | 2E-05   |      |           |            |     |          |                |
| Thallium       |       | 1E-05           | mg/L                    | 1.0E-05 |      |           |            |     |          |                |

### Qualifiers:

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ND - Not detected at the reporting limit.

## QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Barry Damschen

**Report Date:** 07/09/12

**Project:** Sanitation Inc. Closed Landfill

**Work Order:** B12062268

| Analyte                             | Count | Result                                    | Units | RL      | %REC | Low Limit | High Limit | RPD | RPDLimit | Qual           |
|-------------------------------------|-------|-------------------------------------------|-------|---------|------|-----------|------------|-----|----------|----------------|
| <b>Method:</b> SW7470A              |       | Analytical Run: HGCV202-B_120703A         |       |         |      |           |            |     |          |                |
| <b>Sample ID:</b> QCS               |       | Initial Calibration Verification Standard |       |         |      |           |            |     |          |                |
| Mercury                             |       | 0.00184                                   | mg/L  | 0.00010 | 92   | 90        | 110        |     |          | 07/03/12 12:36 |
| <b>Method:</b> SW7470A              |       |                                           |       |         |      |           |            |     |          | Batch: 63466   |
| <b>Sample ID:</b> MB-63466          |       | Method Blank                              |       |         |      |           |            |     |          |                |
| Mercury                             |       | ND                                        | mg/L  | 2E-05   |      |           |            |     |          | 07/03/12 12:42 |
| <b>Sample ID:</b> LCS-63466         |       | Laboratory Control Sample                 |       |         |      |           |            |     |          |                |
| Mercury                             |       | 0.00189                                   | mg/L  | 0.00010 | 94   | 85        | 115        |     |          | 07/03/12 12:44 |
| <b>Sample ID:</b> B12061886-001BMS  |       | Sample Matrix Spike                       |       |         |      |           |            |     |          |                |
| Mercury                             |       | 0.00201                                   | mg/L  | 0.00010 | 101  | 85        | 115        |     |          | 07/03/12 12:49 |
| <b>Sample ID:</b> B12061886-001BMSD |       | Sample Matrix Spike Duplicate             |       |         |      |           |            |     |          |                |
| Mercury                             |       | 0.00199                                   | mg/L  | 0.00010 | 100  | 85        | 115        | 1.0 | 20       | 07/03/12 12:51 |
| <b>Sample ID:</b> B12062455-003CMS  |       | Sample Matrix Spike                       |       |         |      |           |            |     |          |                |
| Mercury                             |       | 0.00187                                   | mg/L  | 0.00010 | 94   | 85        | 115        |     |          | 07/03/12 13:14 |
| <b>Sample ID:</b> B12062455-003CMSD |       | Sample Matrix Spike Duplicate             |       |         |      |           |            |     |          |                |
| Mercury                             |       | 0.00203                                   | mg/L  | 0.00010 | 102  | 85        | 115        | 8.2 | 20       | 07/03/12 13:15 |

### Qualifiers:

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ND - Not detected at the reporting limit.



## QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Barry Damschen

Report Date: 07/05/12

Project: Sanitation Inc. Closed Landfill

Work Order: B12062268

| Analyte                      | Result                    | Units    | RL  | %REC | Low Limit | High Limit              | RPD | RPDLimit       | Qual           |
|------------------------------|---------------------------|----------|-----|------|-----------|-------------------------|-----|----------------|----------------|
| Method: A2510 B              |                           |          |     |      |           |                         |     |                | Batch: R187411 |
| Sample ID: SC 2ND 1413       | Laboratory Control Sample |          |     |      |           | Run: PHSC_101-B_120626A |     | 06/26/12 09:36 |                |
| Conductivity @ 25 C          | 1450                      | umhos/cm | 5.0 | 102  | 90        | 110                     |     |                |                |
| Sample ID: MBLK              | Method Blank              |          |     |      |           | Run: PHSC_101-B_120626A |     | 06/26/12 16:47 |                |
| Conductivity @ 25 C          | ND                        | umhos/cm | 5.0 |      |           |                         |     |                |                |
| Sample ID: B12062217-001ADUP | Sample Duplicate          |          |     |      |           | Run: PHSC_101-B_120626A |     | 06/26/12 16:57 |                |
| Conductivity @ 25 C          | 356                       | umhos/cm | 5.0 |      |           |                         | 0.3 | 10             |                |

### Qualifiers:

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ND - Not detected at the reporting limit.

## QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Barry Damschen

Report Date: 07/05/12

Project: Sanitation Inc. Closed Landfill

Work Order: B12062268

| Analyte                      | Result                                    | Units | RL   | %REC | Low Limit               | High Limit | RPD                                | RPDLimit       | Qual           |
|------------------------------|-------------------------------------------|-------|------|------|-------------------------|------------|------------------------------------|----------------|----------------|
| Method: A4500-H B            |                                           |       |      |      |                         |            | Analytical Run: PHSC_101-B_120626A |                |                |
| Sample ID: pH 8              | Initial Calibration Verification Standard |       |      |      |                         |            |                                    |                | 06/26/12 09:14 |
| pH                           | 7.99                                      | s.u.  | 0.10 | 100  | 98                      | 102        |                                    |                |                |
| Method: A4500-H B            |                                           |       |      |      |                         |            | Batch: R187411                     |                |                |
| Sample ID: B12062217-001ADUP | Sample Duplicate                          |       |      |      | Run: PHSC_101-B_120626A |            |                                    | 06/26/12 16:57 |                |
| pH                           | 9.51                                      | s.u.  | 0.10 |      |                         |            | 0.8                                | 3              |                |

### Qualifiers:

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ND - Not detected at the reporting limit.

## QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Barry Damschen  
 Project: Sanitation Inc. Closed Landfill

Report Date: 07/05/12  
 Work Order: B12062268

| Analyte                      | Result                                    | Units | RL   | %REC | Low Limit | High Limit | RPD                             | RPDLimit | Qual           |
|------------------------------|-------------------------------------------|-------|------|------|-----------|------------|---------------------------------|----------|----------------|
| Method: E300.0               |                                           |       |      |      |           |            | Analytical Run: IC202-B_120627A |          |                |
| Sample ID: ICV               | Initial Calibration Verification Standard |       |      |      |           |            |                                 |          | 06/28/12 09:37 |
| Chloride                     | 24.6                                      | mg/L  | 1.0  | 98   | 90        | 110        |                                 |          |                |
| Sulfate                      | 99.7                                      | mg/L  | 1.0  | 100  | 90        | 110        |                                 |          |                |
| Method: E300.0               |                                           |       |      |      |           |            | Batch: R187570                  |          |                |
| Sample ID: ICB062712-12      | Method Blank                              |       |      |      |           |            |                                 |          | 06/27/12 17:07 |
| Chloride                     | 0.09                                      | mg/L  | 0.04 |      |           |            |                                 |          |                |
| Sulfate                      | ND                                        | mg/L  | 0.07 |      |           |            |                                 |          |                |
| Sample ID: LFB062712-13      | Laboratory Fortified Blank                |       |      |      |           |            |                                 |          | 06/27/12 17:22 |
| Chloride                     | 24.5                                      | mg/L  | 1.0  | 98   | 90        | 110        |                                 |          |                |
| Sulfate                      | 99.2                                      | mg/L  | 1.1  | 99   | 90        | 110        |                                 |          |                |
| Sample ID: B12062241-006AMS  | Sample Matrix Spike                       |       |      |      |           |            |                                 |          | 06/28/12 16:14 |
| Chloride                     | 29.5                                      | mg/L  | 1.0  | 106  | 90        | 110        |                                 |          |                |
| Sulfate                      | 185                                       | mg/L  | 1.1  | 111  | 90        | 110        |                                 |          | S              |
| Sample ID: B12062241-006AMSD | Sample Matrix Spike Duplicate             |       |      |      |           |            |                                 |          | 06/28/12 16:29 |
| Chloride                     | 29.5                                      | mg/L  | 1.0  | 106  | 90        | 110        | 0.0                             | 20       |                |
| Sulfate                      | 185                                       | mg/L  | 1.1  | 111  | 90        | 110        | 0.0                             | 20       | S              |

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



## QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Barry Damschen

Report Date: 07/05/12

Project: Sanitation Inc. Closed Landfill

Work Order: B12062268

| Analyte                             | Result                                    | Units | RL    | %REC | Low Limit | High Limit | RPD                              | RPDLimit | Qual           |
|-------------------------------------|-------------------------------------------|-------|-------|------|-----------|------------|----------------------------------|----------|----------------|
| <b>Method: E353.2</b>               |                                           |       |       |      |           |            | Analytical Run: FIA203-B_120628A |          |                |
| <b>Sample ID: ICV</b>               | Initial Calibration Verification Standard |       |       |      |           |            |                                  |          | 06/28/12 07:29 |
| Nitrogen, Nitrate+Nitrite as N      | 22.8                                      | mg/L  | 0.060 | 105  | 90        | 110        |                                  |          |                |
| <b>Method: E353.2</b>               |                                           |       |       |      |           |            | Batch: R187562                   |          |                |
| <b>Sample ID: MBLK</b>              | Method Blank                              |       |       |      |           |            |                                  |          | 06/28/12 07:31 |
| Nitrogen, Nitrate+Nitrite as N      | 0.008                                     | mg/L  | 0.004 |      |           |            | Run: FIA203-B_120628A            |          |                |
| <b>Sample ID: LFB</b>               | Laboratory Fortified Blank                |       |       |      |           |            |                                  |          | 06/28/12 07:32 |
| Nitrogen, Nitrate+Nitrite as N      | 1.04                                      | mg/L  | 0.010 | 106  | 90        | 110        | Run: FIA203-B_120628A            |          |                |
| <b>Sample ID: B12062272-005CMS</b>  | Sample Matrix Spike                       |       |       |      |           |            |                                  |          | 06/28/12 10:29 |
| Nitrogen, Nitrate+Nitrite as N      | 9.76                                      | mg/L  | 0.060 | 105  | 90        | 110        | Run: FIA203-B_120628A            |          |                |
| <b>Sample ID: B12062272-005CMSD</b> | Sample Matrix Spike Duplicate             |       |       |      |           |            |                                  |          | 06/28/12 10:30 |
| Nitrogen, Nitrate+Nitrite as N      | 9.74                                      | mg/L  | 0.060 | 105  | 90        | 110        | 0.1                              | 10       |                |

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## QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Barry Damschen  
**Project:** Sanitation Inc. Closed Landfill

**Report Date:** 07/05/12  
**Work Order:** B12062268

| Analyte                             | Result                     | Units | RL  | %REC | Low Limit | High Limit | RPD               | RPDLimit | Qual           |
|-------------------------------------|----------------------------|-------|-----|------|-----------|------------|-------------------|----------|----------------|
| <b>Method: E410.4</b>               |                            |       |     |      |           |            |                   |          | Batch: R187719 |
| <b>Sample ID: MB-R187719</b>        | Method Blank               |       |     |      |           |            | Run: SPEC_120628B |          | 06/28/12 10:00 |
| Oxygen Demand, Chemical (COD)       | ND                         | mg/L  | 5   |      |           |            |                   |          |                |
| <b>Sample ID: B12062217-002CMS</b>  | Sample Matrix Spike        |       |     |      |           |            | Run: SPEC_120628B |          | 06/28/12 10:00 |
| Oxygen Demand, Chemical (COD)       | 29.2                       | mg/L  | 5.0 | 99   | 90        | 110        |                   |          |                |
| <b>Sample ID: B12062217-003CDUP</b> | Sample Duplicate           |       |     |      |           |            | Run: SPEC_120628B |          | 06/28/12 10:00 |
| Oxygen Demand, Chemical (COD)       | 8.00                       | mg/L  | 5.0 |      |           |            | 0.0               | 30       |                |
| <b>Sample ID: LFB</b>               | Laboratory Fortified Blank |       |     |      |           |            | Run: SPEC_120628B |          | 06/28/12 10:00 |
| Oxygen Demand, Chemical (COD)       | 24.4                       | mg/L  | 5.0 | 100  | 90        | 110        |                   |          |                |

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# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Barry Damschen

Project: Sanitation Inc. Closed Landfill

Report Date: 07/05/12

Work Order: B12062268

| Analyte                      | Result                                    | Units | RL     | %REC | Low Limit | High Limit | RPD                                 | RPDLimit | Qual           |
|------------------------------|-------------------------------------------|-------|--------|------|-----------|------------|-------------------------------------|----------|----------------|
| Method: Kelada mod           |                                           |       |        |      |           |            | Analytical Run: AUTOAN201-B_120629A |          |                |
| Sample ID: ICV-1             | Initial Calibration Verification Standard |       |        |      |           |            |                                     |          | 06/29/12 10:03 |
| Cyanide, Total               | 0.102                                     | mg/L  | 0.0050 | 102  | 90        | 110        |                                     |          |                |
| Method: Kelada mod           |                                           |       |        |      |           |            | Batch: R187703                      |          |                |
| Sample ID: LFB-2             | Laboratory Fortified Blank                |       |        |      |           |            |                                     |          | 06/29/12 10:05 |
| Cyanide, Total               | 0.102                                     | mg/L  | 0.0050 | 102  | 90        | 110        |                                     |          |                |
| Sample ID: MBLK-3            | Method Blank                              |       |        |      |           |            |                                     |          | 06/29/12 10:07 |
| Cyanide, Total               | ND                                        | mg/L  | 0.004  |      |           |            |                                     |          |                |
| Sample ID: B12062218-001BMS  | Sample Matrix Spike                       |       |        |      |           |            |                                     |          | 06/29/12 11:09 |
| Cyanide, Total               | 0.113                                     | mg/L  | 0.0050 | 98   | 90        | 110        |                                     |          |                |
| Sample ID: B12062218-001BMSD | Sample Matrix Spike Duplicate             |       |        |      |           |            |                                     |          | 06/29/12 11:11 |
| Cyanide, Total               | 0.116                                     | mg/L  | 0.0050 | 101  | 90        | 110        | 2.6                                 | 10       |                |

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## QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Barry Damschen

**Report Date:** 07/09/12

**Project:** Sanitation Inc. Closed Landfill

**Work Order:** B12062268

| Analyte                     | Result                    | Units | RL  | %REC | Low Limit             | High Limit | RPD | RPDLimit       | Qual |
|-----------------------------|---------------------------|-------|-----|------|-----------------------|------------|-----|----------------|------|
| <b>Method:</b> SW8260B      |                           |       |     |      |                       |            |     |                |      |
| <b>Batch:</b> R187727       |                           |       |     |      |                       |            |     |                |      |
| <b>Sample ID:</b> LCS070112 | Laboratory Control Sample |       |     |      | Run: SV5972_1_120701A |            |     | 07/01/12 16:29 |      |
| Acetone                     | 55.2                      | ug/L  | 20  | 110  | 62                    | 130        |     |                |      |
| Acrylonitrile               | 52.4                      | ug/L  | 20  | 105  | 60                    | 130        |     |                |      |
| Benzene                     | 5.12                      | ug/L  | 1.0 | 102  | 71                    | 133        |     |                |      |
| Bromochloromethane          | 5.32                      | ug/L  | 1.0 | 106  | 68                    | 131        |     |                |      |
| Bromodichloromethane        | 5.36                      | ug/L  | 1.0 | 107  | 67                    | 138        |     |                |      |
| Bromoform                   | 4.76                      | ug/L  | 1.0 | 95   | 64                    | 136        |     |                |      |
| Bromomethane                | 6.00                      | ug/L  | 1.0 | 120  | 60                    | 138        |     |                |      |
| Carbon disulfide            | 5.20                      | ug/L  | 1.0 | 104  | 46                    | 145        |     |                |      |
| Carbon tetrachloride        | 5.92                      | ug/L  | 1.0 | 118  | 61                    | 144        |     |                |      |
| Chlorobenzene               | 5.16                      | ug/L  | 1.0 | 103  | 78                    | 136        |     |                |      |
| Chlorodibromomethane        | 5.24                      | ug/L  | 1.0 | 105  | 72                    | 136        |     |                |      |
| Chloroethane                | 6.08                      | ug/L  | 1.0 | 122  | 64                    | 136        |     |                |      |
| Chloroform                  | 5.36                      | ug/L  | 1.0 | 107  | 69                    | 133        |     |                |      |
| Chloromethane               | 5.60                      | ug/L  | 1.0 | 112  | 63                    | 149        |     |                |      |
| 1,2-Dibromo-3-chloropropane | 5.64                      | ug/L  | 1.0 | 113  | 63                    | 125        |     |                |      |
| 1,2-Dibromoethane           | 5.28                      | ug/L  | 1.0 | 106  | 75                    | 131        |     |                |      |
| Dibromomethane              | 5.20                      | ug/L  | 1.0 | 104  | 72                    | 133        |     |                |      |
| 1,2-Dichlorobenzene         | 5.28                      | ug/L  | 1.0 | 106  | 78                    | 129        |     |                |      |
| 1,4-Dichlorobenzene         | 5.04                      | ug/L  | 1.0 | 101  | 78                    | 131        |     |                |      |
| trans-1,4-Dichloro-2-butene | 5.32                      | ug/L  | 1.0 | 106  | 50                    | 142        |     |                |      |
| Dichlorodifluoromethane     | 5.44                      | ug/L  | 1.0 | 109  | 55                    | 141        |     |                |      |
| 1,1-Dichloroethane          | 5.44                      | ug/L  | 1.0 | 109  | 72                    | 130        |     |                |      |
| 1,2-Dichloroethane          | 5.76                      | ug/L  | 1.0 | 115  | 57                    | 146        |     |                |      |
| 1,1-Dichloroethene          | 6.48                      | ug/L  | 1.0 | 130  | 66                    | 142        |     |                |      |
| cis-1,2-Dichloroethene      | 5.12                      | ug/L  | 1.0 | 102  | 74                    | 133        |     |                |      |
| trans-1,2-Dichloroethene    | 6.24                      | ug/L  | 1.0 | 125  | 76                    | 138        |     |                |      |
| 1,2-Dichloropropane         | 4.92                      | ug/L  | 1.0 | 98   | 72                    | 135        |     |                |      |
| cis-1,3-Dichloropropene     | 5.12                      | ug/L  | 1.0 | 102  | 75                    | 132        |     |                |      |
| trans-1,3-Dichloropropene   | 5.48                      | ug/L  | 1.0 | 110  | 77                    | 145        |     |                |      |
| Ethylbenzene                | 5.08                      | ug/L  | 1.0 | 102  | 78                    | 131        |     |                |      |
| 2-Hexanone                  | 50.8                      | ug/L  | 20  | 102  | 72                    | 131        |     |                |      |
| Iodomethane                 | 6.88                      | ug/L  | 1.0 | 138  | 66                    | 132        |     |                | S    |
| Methyl ethyl ketone         | 49.6                      | ug/L  | 20  | 99   | 55                    | 145        |     |                |      |
| Methyl isobutyl ketone      | 48.0                      | ug/L  | 20  | 96   | 73                    | 129        |     |                |      |
| Methylene chloride          | 5.92                      | ug/L  | 1.0 | 118  | 73                    | 126        |     |                |      |
| Styrene                     | 5.08                      | ug/L  | 1.0 | 102  | 76                    | 134        |     |                |      |
| 1,1,1,2-Tetrachloroethane   | 5.16                      | ug/L  | 1.0 | 103  | 75                    | 135        |     |                |      |
| 1,1,1,2,2-Tetrachloroethane | 5.12                      | ug/L  | 1.0 | 102  | 72                    | 132        |     |                |      |
| Tetrachloroethene           | 5.16                      | ug/L  | 1.0 | 103  | 78                    | 137        |     |                |      |
| Toluene                     | 5.08                      | ug/L  | 1.0 | 102  | 78                    | 134        |     |                |      |
| 1,1,1-Trichloroethane       | 5.64                      | ug/L  | 1.0 | 113  | 64                    | 141        |     |                |      |
| 1,1,2-Trichloroethane       | 5.00                      | ug/L  | 1.0 | 100  | 72                    | 133        |     |                |      |
| Trichloroethene             | 5.12                      | ug/L  | 1.0 | 102  | 75                    | 138        |     |                |      |

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Barry Damschen

Report Date: 07/09/12

Project: Sanitation Inc. Closed Landfill

Work Order: B12062268

| Analyte                     | Result                    | Units | RL   | %REC                  | Low Limit             | High Limit | RPD | RPDLimit       | Qual           |
|-----------------------------|---------------------------|-------|------|-----------------------|-----------------------|------------|-----|----------------|----------------|
| <b>Method: SW8260B</b>      |                           |       |      |                       |                       |            |     |                |                |
| Batch: R187727              |                           |       |      |                       |                       |            |     |                |                |
| <b>Sample ID: LCS070112</b> | Laboratory Control Sample |       |      |                       | Run: SV5972.I_120701A |            |     |                | 07/01/12 16:29 |
| Trichlorofluoromethane      | 6.12                      | ug/L  | 1.0  | 122                   | 58                    | 139        |     |                |                |
| 1,2,3-Trichloropropane      | 5.36                      | ug/L  | 1.0  | 107                   | 67                    | 133        |     |                |                |
| Vinyl acetate               | 8.00                      | ug/L  | 1.0  | 160                   | 31                    | 124        |     |                | S              |
| Vinyl chloride              | 5.72                      | ug/L  | 1.0  | 114                   | 66                    | 140        |     |                |                |
| m+p-Xylenes                 | 10.0                      | ug/L  | 1.0  | 100                   | 78                    | 133        |     |                |                |
| o-Xylene                    | 5.00                      | ug/L  | 1.0  | 100                   | 79                    | 136        |     |                |                |
| Surr: 1,2-Dichloroethane-d4 |                           |       | 1.0  | 113                   | 70                    | 130        |     |                |                |
| Surr: Dibromofluoromethane  |                           |       | 1.0  | 114                   | 77                    | 126        |     |                |                |
| Surr: p-Bromofluorobenzene  |                           |       | 1.0  | 108                   | 76                    | 127        |     |                |                |
| Surr: Toluene-d8            |                           |       | 1.0  | 103                   | 79                    | 122        |     |                |                |
| <b>Sample ID: BLK070112</b> |                           |       |      |                       |                       |            |     |                |                |
| Method Blank                |                           |       |      | Run: SV5972.I_120701A |                       |            |     | 07/01/12 17:28 |                |
| Acetone                     | ND                        | ug/L  | 10   |                       |                       |            |     |                |                |
| Acrylonitrile               | ND                        | ug/L  | 10   |                       |                       |            |     |                |                |
| Benzene                     | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| Bromochloromethane          | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| Bromodichloromethane        | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| Bromoform                   | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| Bromomethane                | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| Carbon disulfide            | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| Carbon tetrachloride        | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| Chlorobenzene               | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| Chlorodibromomethane        | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| Chloroethane                | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| Chloroform                  | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| Chloromethane               | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| 1,2-Dibromo-3-chloropropane | ND                        | ug/L  | 1.0  |                       |                       |            |     |                |                |
| 1,2-Dibromoethane           | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| Dibromomethane              | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| 1,2-Dichlorobenzene         | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| 1,4-Dichlorobenzene         | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| trans-1,4-Dichloro-2-butene | ND                        | ug/L  | 1.0  |                       |                       |            |     |                |                |
| Dichlorodifluoromethane     | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| 1,1-Dichloroethane          | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| 1,2-Dichloroethane          | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| 1,1-Dichloroethene          | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| cis-1,2-Dichloroethene      | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| trans-1,2-Dichloroethene    | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| 1,2-Dichloropropane         | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| cis-1,3-Dichloropropene     | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| trans-1,3-Dichloropropene   | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| Ethylbenzene                | ND                        | ug/L  | 0.50 |                       |                       |            |     |                |                |
| 2-Hexanone                  | ND                        | ug/L  | 10   |                       |                       |            |     |                |                |

## Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



# QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Barry Damschen  
**Project:** Sanitation Inc. Closed Landfill

**Report Date:** 07/09/12  
**Work Order:** B12062268

| Analyte                     | Result       | Units | RL                    | %REC | Low Limit      | High Limit | RPD | RPDLimit | Qual |
|-----------------------------|--------------|-------|-----------------------|------|----------------|------------|-----|----------|------|
| <b>Method: SW8260B</b>      |              |       |                       |      |                |            |     |          |      |
| Batch: R187727              |              |       |                       |      |                |            |     |          |      |
| <b>Sample ID:</b> BLK070112 | Method Blank |       | Run: SV5972.I_120701A |      | 07/01/12 17:28 |            |     |          |      |
| Iodomethane                 | ND           | ug/L  | 1.0                   |      |                |            |     |          |      |
| Methyl ethyl ketone         | ND           | ug/L  | 10                    |      |                |            |     |          |      |
| Methyl isobutyl ketone      | ND           | ug/L  | 10                    |      |                |            |     |          |      |
| Methylene chloride          | ND           | ug/L  | 0.50                  |      |                |            |     |          |      |
| Styrene                     | ND           | ug/L  | 0.50                  |      |                |            |     |          |      |
| 1,1,1,2-Tetrachloroethane   | ND           | ug/L  | 0.50                  |      |                |            |     |          |      |
| 1,1,2,2-Tetrachloroethane   | ND           | ug/L  | 0.50                  |      |                |            |     |          |      |
| Tetrachloroethene           | ND           | ug/L  | 0.50                  |      |                |            |     |          |      |
| Toluene                     | ND           | ug/L  | 0.50                  |      |                |            |     |          |      |
| 1,1,1-Trichloroethane       | ND           | ug/L  | 0.50                  |      |                |            |     |          |      |
| 1,1,2-Trichloroethane       | ND           | ug/L  | 0.50                  |      |                |            |     |          |      |
| Trichloroethene             | ND           | ug/L  | 0.50                  |      |                |            |     |          |      |
| Trichlorofluoromethane      | ND           | ug/L  | 0.50                  |      |                |            |     |          |      |
| 1,2,3-Trichloropropane      | ND           | ug/L  | 0.50                  |      |                |            |     |          |      |
| Vinyl acetate               | ND           | ug/L  | 1.0                   |      |                |            |     |          |      |
| Vinyl chloride              | ND           | ug/L  | 0.50                  |      |                |            |     |          |      |
| m+p-Xylenes                 | ND           | ug/L  | 0.50                  |      |                |            |     |          |      |
| o-Xylene                    | ND           | ug/L  | 0.50                  |      |                |            |     |          |      |
| Xylenes, Total              | ND           | ug/L  | 0.50                  |      |                |            |     |          |      |
| Surr: 1,2-Dichloroethane-d4 |              |       | 1.0                   | 112  | 70             | 130        |     |          |      |
| Surr: Dibromofluoromethane  |              |       | 1.0                   | 114  | 77             | 126        |     |          |      |
| Surr: p-Bromofluorobenzene  |              |       | 1.0                   | 112  | 76             | 127        |     |          |      |
| Surr: Toluene-d8            |              |       | 1.0                   | 105  | 79             | 122        |     |          |      |

## Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



## QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Barry Damschen

Report Date: 07/09/12

Project: Sanitation Inc. Closed Landfill

Work Order: B12062268

| Analyte                     | Result                    | Units | RL  | %REC | Low Limit             | High Limit | RPD | RPDLimit | Qual           |
|-----------------------------|---------------------------|-------|-----|------|-----------------------|------------|-----|----------|----------------|
| Method: SW8260B             |                           |       |     |      |                       |            |     |          | Batch: R187779 |
| Sample ID: LCSa070212       | Laboratory Control Sample |       |     |      | Run: SV5972.I_120702A |            |     |          | 07/02/12 13:43 |
| Acetone                     | 57.6                      | ug/L  | 20  | 115  | 62                    | 130        |     |          |                |
| Acrylonitrile               | 58.8                      | ug/L  | 20  | 118  | 60                    | 130        |     |          |                |
| Benzene                     | 5.32                      | ug/L  | 1.0 | 106  | 71                    | 133        |     |          |                |
| Bromochloromethane          | 5.52                      | ug/L  | 1.0 | 110  | 68                    | 131        |     |          |                |
| Bromodichloromethane        | 5.60                      | ug/L  | 1.0 | 112  | 67                    | 138        |     |          |                |
| Bromoform                   | 4.88                      | ug/L  | 1.0 | 98   | 64                    | 136        |     |          |                |
| Bromomethane                | 6.48                      | ug/L  | 1.0 | 130  | 60                    | 138        |     |          |                |
| Carbon disulfide            | 5.28                      | ug/L  | 1.0 | 106  | 46                    | 145        |     |          |                |
| Carbon tetrachloride        | 6.24                      | ug/L  | 1.0 | 125  | 61                    | 144        |     |          |                |
| Chlorobenzene               | 5.40                      | ug/L  | 1.0 | 108  | 78                    | 136        |     |          |                |
| Chlorodibromomethane        | 5.52                      | ug/L  | 1.0 | 110  | 72                    | 136        |     |          |                |
| Chloroethane                | 6.16                      | ug/L  | 1.0 | 123  | 64                    | 136        |     |          |                |
| Chloroform                  | 5.56                      | ug/L  | 1.0 | 111  | 69                    | 133        |     |          |                |
| Chloromethane               | 5.52                      | ug/L  | 1.0 | 110  | 63                    | 149        |     |          |                |
| 1,2-Dibromo-3-chloropropane | 5.52                      | ug/L  | 1.0 | 110  | 63                    | 125        |     |          |                |
| 1,2-Dibromoethane           | 5.36                      | ug/L  | 1.0 | 107  | 75                    | 131        |     |          |                |
| Dibromomethane              | 5.36                      | ug/L  | 1.0 | 107  | 72                    | 133        |     |          |                |
| 1,2-Dichlorobenzene         | 5.28                      | ug/L  | 1.0 | 106  | 78                    | 129        |     |          |                |
| 1,4-Dichlorobenzene         | 5.28                      | ug/L  | 1.0 | 106  | 78                    | 131        |     |          |                |
| trans-1,4-Dichloro-2-butene | 5.36                      | ug/L  | 1.0 | 107  | 50                    | 142        |     |          |                |
| Dichlorodifluoromethane     | 5.56                      | ug/L  | 1.0 | 111  | 55                    | 141        |     |          |                |
| 1,1-Dichloroethane          | 5.84                      | ug/L  | 1.0 | 117  | 72                    | 130        |     |          |                |
| 1,2-Dichloroethane          | 6.00                      | ug/L  | 1.0 | 120  | 57                    | 146        |     |          |                |
| 1,1-Dichloroethene          | 6.72                      | ug/L  | 1.0 | 134  | 66                    | 142        |     |          |                |
| cis-1,2-Dichloroethene      | 5.36                      | ug/L  | 1.0 | 107  | 74                    | 133        |     |          |                |
| trans-1,2-Dichloroethene    | 6.40                      | ug/L  | 1.0 | 128  | 76                    | 138        |     |          |                |
| 1,2-Dichloropropane         | 5.04                      | ug/L  | 1.0 | 101  | 72                    | 135        |     |          |                |
| cis-1,3-Dichloropropene     | 5.36                      | ug/L  | 1.0 | 107  | 75                    | 132        |     |          |                |
| trans-1,3-Dichloropropene   | 5.76                      | ug/L  | 1.0 | 115  | 77                    | 145        |     |          |                |
| Ethylbenzene                | 5.28                      | ug/L  | 1.0 | 106  | 78                    | 131        |     |          |                |
| 2-Hexanone                  | 51.6                      | ug/L  | 20  | 103  | 72                    | 131        |     |          |                |
| Iodomethane                 | 7.12                      | ug/L  | 1.0 | 142  | 66                    | 132        |     |          | S              |
| Methyl ethyl ketone         | 50.0                      | ug/L  | 20  | 100  | 55                    | 145        |     |          |                |
| Methyl isobutyl ketone      | 48.4                      | ug/L  | 20  | 97   | 73                    | 129        |     |          |                |
| Methylene chloride          | 6.24                      | ug/L  | 1.0 | 125  | 73                    | 126        |     |          |                |
| Styrene                     | 5.28                      | ug/L  | 1.0 | 106  | 76                    | 134        |     |          |                |
| 1,1,1,2-Tetrachloroethane   | 5.52                      | ug/L  | 1.0 | 110  | 75                    | 135        |     |          |                |
| 1,1,2,2-Tetrachloroethane   | 5.04                      | ug/L  | 1.0 | 101  | 72                    | 132        |     |          |                |
| Tetrachloroethene           | 5.44                      | ug/L  | 1.0 | 109  | 78                    | 137        |     |          |                |
| Toluene                     | 5.36                      | ug/L  | 1.0 | 107  | 78                    | 134        |     |          |                |
| 1,1,1-Trichloroethane       | 5.88                      | ug/L  | 1.0 | 118  | 64                    | 141        |     |          |                |
| 1,1,2-Trichloroethane       | 5.16                      | ug/L  | 1.0 | 103  | 72                    | 133        |     |          |                |
| Trichloroethene             | 5.40                      | ug/L  | 1.0 | 108  | 75                    | 138        |     |          |                |

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

## QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Barry Damschen

Report Date: 07/09/12

Project: Sanitation Inc. Closed Landfill

Work Order: B12062268

| Analyte                      | Result                    | Units | RL   | %REC                  | Low Limit             | High Limit | RPD            | RPDLimit       | Qual |
|------------------------------|---------------------------|-------|------|-----------------------|-----------------------|------------|----------------|----------------|------|
| <b>Method: SW8260B</b>       |                           |       |      |                       |                       |            |                |                |      |
| Batch: R187779               |                           |       |      |                       |                       |            |                |                |      |
| <b>Sample ID: LCSa070212</b> | Laboratory Control Sample |       |      |                       | Run: SV5972.I_120702A |            |                | 07/02/12 13:43 |      |
| Trichlorofluoromethane       | 6.40                      | ug/L  | 1.0  | 128                   | 58                    | 139        |                |                |      |
| 1,2,3-Trichloropropane       | 5.52                      | ug/L  | 1.0  | 110                   | 67                    | 133        |                |                |      |
| Vinyl acetate                | 8.00                      | ug/L  | 1.0  | 160                   | 31                    | 124        |                |                | S    |
| Vinyl chloride               | 6.08                      | ug/L  | 1.0  | 122                   | 66                    | 140        |                |                |      |
| m+p-Xylenes                  | 10.6                      | ug/L  | 1.0  | 106                   | 78                    | 133        |                |                |      |
| o-Xylene                     | 5.24                      | ug/L  | 1.0  | 105                   | 79                    | 136        |                |                |      |
| Surr: 1,2-Dichloroethane-d4  |                           |       | 1.0  | 112                   | 70                    | 130        |                |                |      |
| Surr: Dibromofluoromethane   |                           |       | 1.0  | 116                   | 77                    | 126        |                |                |      |
| Surr: p-Bromofluorobenzene   |                           |       | 1.0  | 107                   | 76                    | 127        |                |                |      |
| Surr: Toluene-d8             |                           |       | 1.0  | 105                   | 79                    | 122        |                |                |      |
| <b>Sample ID: BLKa070212</b> |                           |       |      |                       |                       |            |                |                |      |
| Method Blank                 |                           |       |      | Run: SV5972.I_120702A |                       |            | 07/02/12 14:41 |                |      |
| Acetone                      | ND                        | ug/L  | 10   |                       |                       |            |                |                |      |
| Acrylonitrile                | ND                        | ug/L  | 10   |                       |                       |            |                |                |      |
| Benzene                      | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| Bromochloromethane           | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| Bromodichloromethane         | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| Bromoform                    | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| Bromomethane                 | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| Carbon disulfide             | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| Carbon tetrachloride         | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| Chlorobenzene                | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| Chlorodibromomethane         | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| Chloroethane                 | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| Chloroform                   | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| Chloromethane                | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| 1,2-Dibromo-3-chloropropane  | ND                        | ug/L  | 1.0  |                       |                       |            |                |                |      |
| 1,2-Dibromoethane            | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| Dibromomethane               | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| 1,2-Dichlorobenzene          | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| 1,4-Dichlorobenzene          | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| trans-1,4-Dichloro-2-butene  | ND                        | ug/L  | 1.0  |                       |                       |            |                |                |      |
| Dichlorodifluoromethane      | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| 1,1-Dichloroethane           | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| 1,2-Dichloroethane           | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| 1,1-Dichloroethene           | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| cis-1,2-Dichloroethene       | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| trans-1,2-Dichloroethene     | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| 1,2-Dichloropropane          | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| cis-1,3-Dichloropropene      | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| trans-1,3-Dichloropropene    | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| Ethylbenzene                 | ND                        | ug/L  | 0.50 |                       |                       |            |                |                |      |
| 2-Hexanone                   | ND                        | ug/L  | 10   |                       |                       |            |                |                |      |

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



## QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Barry Damschen

Project: Sanitation Inc. Closed Landfill

Report Date: 07/09/12

Work Order: B12062268

| Analyte                            | Result       | Units                 | RL                    | %REC | Low Limit | High Limit     | RPD            | RPDLimit | Qual |
|------------------------------------|--------------|-----------------------|-----------------------|------|-----------|----------------|----------------|----------|------|
| <b>Method: SW8260B</b>             |              |                       |                       |      |           |                |                |          |      |
| Batch: R187779                     |              |                       |                       |      |           |                |                |          |      |
| <b>Sample ID: BLKa070212</b>       | Method Blank |                       | Run: SV5972.I_120702A |      |           |                | 07/02/12 14:41 |          |      |
| Iodomethane                        | ND           | ug/L                  | 1.0                   |      |           |                |                |          |      |
| Methyl ethyl ketone                | ND           | ug/L                  | 10                    |      |           |                |                |          |      |
| Methyl isobutyl ketone             | ND           | ug/L                  | 10                    |      |           |                |                |          |      |
| Methylene chloride                 | ND           | ug/L                  | 0.50                  |      |           |                |                |          |      |
| Styrene                            | ND           | ug/L                  | 0.50                  |      |           |                |                |          |      |
| 1,1,1,2-Tetrachloroethane          | ND           | ug/L                  | 0.50                  |      |           |                |                |          |      |
| 1,1,2,2-Tetrachloroethane          | ND           | ug/L                  | 0.50                  |      |           |                |                |          |      |
| Tetrachloroethene                  | ND           | ug/L                  | 0.50                  |      |           |                |                |          |      |
| Toluene                            | ND           | ug/L                  | 0.50                  |      |           |                |                |          |      |
| 1,1,1-Trichloroethane              | ND           | ug/L                  | 0.50                  |      |           |                |                |          |      |
| 1,1,2-Trichloroethane              | ND           | ug/L                  | 0.50                  |      |           |                |                |          |      |
| Trichloroethene                    | ND           | ug/L                  | 0.50                  |      |           |                |                |          |      |
| Trichlorofluoromethane             | ND           | ug/L                  | 0.50                  |      |           |                |                |          |      |
| 1,2,3-Trichloropropane             | ND           | ug/L                  | 0.50                  |      |           |                |                |          |      |
| Vinyl acetate                      | ND           | ug/L                  | 1.0                   |      |           |                |                |          |      |
| Vinyl chloride                     | ND           | ug/L                  | 0.50                  |      |           |                |                |          |      |
| m+p-Xylenes                        | ND           | ug/L                  | 0.50                  |      |           |                |                |          |      |
| o-Xylene                           | ND           | ug/L                  | 0.50                  |      |           |                |                |          |      |
| Xylenes, Total                     | ND           | ug/L                  | 0.50                  |      |           |                |                |          |      |
| Surr: 1,2-Dichloroethane-d4        |              |                       | 1.0                   | 110  | 70        | 130            |                |          |      |
| Surr: Dibromofluoromethane         |              |                       | 1.0                   | 114  | 77        | 126            |                |          |      |
| Surr: p-Bromofluorobenzene         |              |                       | 1.0                   | 113  | 76        | 127            |                |          |      |
| Surr: Toluene-d8                   |              |                       | 1.0                   | 106  | 79        | 122            |                |          |      |
| <b>Sample ID: B12062676-001Bms</b> |              |                       |                       |      |           |                |                |          |      |
| Sample Matrix Spike                |              | Run: SV5972.I_120702A |                       |      |           | 07/02/12 21:35 |                |          |      |
| Acetone                            | 55.6         | ug/L                  | 20                    | 111  | 62        | 130            |                |          |      |
| Acrylonitrile                      | 58.4         | ug/L                  | 20                    | 117  | 60        | 130            |                |          |      |
| Benzene                            | 5.20         | ug/L                  | 1.0                   | 104  | 71        | 133            |                |          |      |
| Bromochloromethane                 | 5.52         | ug/L                  | 1.0                   | 110  | 68        | 131            |                |          |      |
| Bromodichloromethane               | 5.44         | ug/L                  | 1.0                   | 109  | 67        | 138            |                |          |      |
| Bromoform                          | 5.12         | ug/L                  | 1.0                   | 102  | 64        | 136            |                |          |      |
| Bromomethane                       | 5.72         | ug/L                  | 1.0                   | 114  | 60        | 138            |                |          |      |
| Carbon disulfide                   | 4.92         | ug/L                  | 1.0                   | 98   | 46        | 145            |                |          |      |
| Carbon tetrachloride               | 5.68         | ug/L                  | 1.0                   | 114  | 61        | 144            |                |          |      |
| Chlorobenzene                      | 5.28         | ug/L                  | 1.0                   | 106  | 78        | 136            |                |          |      |
| Chlorodibromomethane               | 5.40         | ug/L                  | 1.0                   | 108  | 72        | 136            |                |          |      |
| Chloroethane                       | 6.20         | ug/L                  | 1.0                   | 124  | 64        | 136            |                |          |      |
| Chloroform                         | 5.36         | ug/L                  | 1.0                   | 107  | 69        | 133            |                |          |      |
| Chloromethane                      | 5.32         | ug/L                  | 1.0                   | 106  | 63        | 149            |                |          |      |
| 1,2-Dibromo-3-chloropropane        | 5.48         | ug/L                  | 1.0                   | 110  | 63        | 125            |                |          |      |
| 1,2-Dibromoethane                  | 5.40         | ug/L                  | 1.0                   | 108  | 75        | 131            |                |          |      |
| Dibromomethane                     | 5.28         | ug/L                  | 1.0                   | 106  | 72        | 133            |                |          |      |
| 1,2-Dichlorobenzene                | 5.32         | ug/L                  | 1.0                   | 106  | 78        | 129            |                |          |      |

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Barry Damschen

Report Date: 07/09/12

Project: Sanitation Inc. Closed Landfill

Work Order: B12062268

| Analyte                      | Result                        | Units | RL                    | %REC | Low Limit | High Limit | RPD            | RPDLimit | Qual |
|------------------------------|-------------------------------|-------|-----------------------|------|-----------|------------|----------------|----------|------|
| Method: SW8260B              |                               |       |                       |      |           |            | Batch: R187779 |          |      |
| Sample ID: B12062676-001Bms  | Sample Matrix Spike           |       | Run: SV5972.I_120702A |      |           |            | 07/02/12 21:35 |          |      |
| 1,4-Dichlorobenzene          | 5.16                          | ug/L  | 1.0                   | 103  | 78        | 131        |                |          |      |
| trans-1,4-Dichloro-2-butene  | 2.84                          | ug/L  | 1.0                   | 57   | 50        | 142        |                |          |      |
| Dichlorodifluoromethane      | 5.40                          | ug/L  | 1.0                   | 108  | 55        | 141        |                |          |      |
| 1,1-Dichloroethane           | 5.48                          | ug/L  | 1.0                   | 110  | 72        | 130        |                |          |      |
| 1,2-Dichloroethane           | 5.88                          | ug/L  | 1.0                   | 118  | 57        | 146        |                |          |      |
| 1,1-Dichloroethene           | 6.56                          | ug/L  | 1.0                   | 131  | 66        | 142        |                |          |      |
| cis-1,2-Dichloroethene       | 5.24                          | ug/L  | 1.0                   | 105  | 74        | 133        |                |          |      |
| trans-1,2-Dichloroethene     | 6.08                          | ug/L  | 1.0                   | 122  | 76        | 138        |                |          |      |
| 1,2-Dichloropropane          | 5.00                          | ug/L  | 1.0                   | 100  | 72        | 135        |                |          |      |
| cis-1,3-Dichloropropene      | 4.40                          | ug/L  | 1.0                   | 88   | 75        | 132        |                |          |      |
| trans-1,3-Dichloropropene    | 4.08                          | ug/L  | 1.0                   | 82   | 77        | 145        |                |          |      |
| Ethylbenzene                 | 5.20                          | ug/L  | 1.0                   | 104  | 78        | 131        |                |          |      |
| 2-Hexanone                   | 50.0                          | ug/L  | 20                    | 100  | 72        | 131        |                |          |      |
| Iodomethane                  | 6.84                          | ug/L  | 1.0                   | 137  | 66        | 132        |                |          | S    |
| Methyl ethyl ketone          | 48.4                          | ug/L  | 20                    | 97   | 55        | 145        |                |          |      |
| Methyl isobutyl ketone       | 50.0                          | ug/L  | 20                    | 100  | 73        | 129        |                |          |      |
| Methylene chloride           | 5.80                          | ug/L  | 1.0                   | 116  | 73        | 126        |                |          |      |
| Styrene                      | 4.96                          | ug/L  | 1.0                   | 99   | 76        | 134        |                |          |      |
| 1,1,1,2-Tetrachloroethane    | 5.40                          | ug/L  | 1.0                   | 108  | 75        | 135        |                |          |      |
| 1,1,2,2-Tetrachloroethane    | 5.28                          | ug/L  | 1.0                   | 106  | 72        | 132        |                |          |      |
| Tetrachloroethene            | 7.64                          | ug/L  | 1.0                   | 104  | 78        | 137        |                |          |      |
| Toluene                      | 5.16                          | ug/L  | 1.0                   | 103  | 78        | 134        |                |          |      |
| 1,1,1-Trichloroethane        | 5.68                          | ug/L  | 1.0                   | 114  | 64        | 141        |                |          |      |
| 1,1,2-Trichloroethane        | 5.28                          | ug/L  | 1.0                   | 106  | 72        | 133        |                |          |      |
| Trichloroethene              | 5.56                          | ug/L  | 1.0                   | 107  | 75        | 138        |                |          |      |
| Trichlorofluoromethane       | 6.20                          | ug/L  | 1.0                   | 124  | 58        | 139        |                |          |      |
| 1,2,3-Trichloropropane       | 6.04                          | ug/L  | 1.0                   | 121  | 67        | 133        |                |          |      |
| Vinyl acetate                | 4.36                          | ug/L  | 1.0                   | 87   | 31        | 124        |                |          |      |
| Vinyl chloride               | 5.76                          | ug/L  | 1.0                   | 115  | 66        | 140        |                |          |      |
| m+p-Xylenes                  | 10.4                          | ug/L  | 1.0                   | 104  | 78        | 133        |                |          |      |
| o-Xylene                     | 5.12                          | ug/L  | 1.0                   | 102  | 79        | 136        |                |          |      |
| Surr: 1,2-Dichloroethane-d4  |                               |       | 1.0                   | 113  | 70        | 130        |                |          |      |
| Surr: Dibromofluoromethane   |                               |       | 1.0                   | 116  | 77        | 126        |                |          |      |
| Surr: p-Bromofluorobenzene   |                               |       | 1.0                   | 106  | 76        | 127        |                |          |      |
| Surr: Toluene-d8             |                               |       | 1.0                   | 105  | 79        | 122        |                |          |      |
| Sample ID: B12062676-001Bmsd | Sample Matrix Spike Duplicate |       | Run: SV5972.I_120702A |      |           |            | 07/02/12 22:03 |          |      |
| Acetone                      | 57.2                          | ug/L  | 20                    | 114  | 62        | 130        | 2.8            | 20       |      |
| Acrylonitrile                | 60.8                          | ug/L  | 20                    | 122  | 60        | 130        | 4.0            | 20       |      |
| Benzene                      | 5.28                          | ug/L  | 1.0                   | 106  | 71        | 133        | 1.5            | 20       |      |
| Bromochloromethane           | 5.52                          | ug/L  | 1.0                   | 110  | 68        | 131        | 0.0            | 20       |      |
| Bromodichloromethane         | 5.40                          | ug/L  | 1.0                   | 108  | 67        | 138        | 0.7            | 20       |      |
| Bromoform                    | 5.12                          | ug/L  | 1.0                   | 102  | 64        | 136        | 0.0            | 20       |      |

## Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

## QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Barry Damschen

Project: Sanitation Inc. Closed Landfill

Report Date: 07/09/12

Work Order: B12062268

| Analyte                      | Result | Units                         | RL  | %REC | Low Limit | High Limit            | RPD | RPDLimit | Qual           |
|------------------------------|--------|-------------------------------|-----|------|-----------|-----------------------|-----|----------|----------------|
| Method: SW8260B              |        |                               |     |      |           |                       |     |          |                |
| Sample ID: B12062676-001Bmsd |        | Sample Matrix Spike Duplicate |     |      |           | Run: SV5972.I_120702A |     |          | Batch: R187779 |
| Bromomethane                 | 5.96   | ug/L                          | 1.0 | 119  | 60        | 138                   | 4.1 | 20       |                |
| Carbon disulfide             | 5.00   | ug/L                          | 1.0 | 100  | 46        | 145                   | 1.6 | 20       |                |
| Carbon tetrachloride         | 5.64   | ug/L                          | 1.0 | 113  | 61        | 144                   | 0.7 | 20       |                |
| Chlorobenzene                | 5.40   | ug/L                          | 1.0 | 108  | 78        | 136                   | 2.2 | 20       |                |
| Chlorodibromomethane         | 5.40   | ug/L                          | 1.0 | 108  | 72        | 136                   | 0.0 | 20       |                |
| Chloroethane                 | 6.36   | ug/L                          | 1.0 | 127  | 64        | 136                   | 2.5 | 20       |                |
| Chloroform                   | 5.40   | ug/L                          | 1.0 | 108  | 69        | 133                   | 0.7 | 20       |                |
| Chloromethane                | 5.60   | ug/L                          | 1.0 | 112  | 63        | 149                   | 5.1 | 20       |                |
| 1,2-Dibromo-3-chloropropane  | 5.36   | ug/L                          | 1.0 | 107  | 63        | 125                   | 2.2 | 20       |                |
| 1,2-Dibromoethane            | 5.36   | ug/L                          | 1.0 | 107  | 75        | 131                   | 0.7 | 20       |                |
| Dibromomethane               | 5.44   | ug/L                          | 1.0 | 109  | 72        | 133                   | 3.0 | 20       |                |
| 1,2-Dichlorobenzene          | 5.60   | ug/L                          | 1.0 | 112  | 78        | 129                   | 5.1 | 20       |                |
| 1,4-Dichlorobenzene          | 5.44   | ug/L                          | 1.0 | 109  | 78        | 131                   | 5.3 | 20       |                |
| trans-1,4-Dichloro-2-butene  | 1.90   | ug/L                          | 1.0 | 38   | 50        | 142                   | 40  | 20       | SR             |
| Dichlorodifluoromethane      | 5.32   | ug/L                          | 1.0 | 106  | 55        | 141                   | 1.5 | 20       |                |
| 1,1-Dichloroethane           | 5.60   | ug/L                          | 1.0 | 112  | 72        | 130                   | 2.2 | 20       |                |
| 1,2-Dichloroethane           | 6.00   | ug/L                          | 1.0 | 120  | 57        | 146                   | 2.0 | 20       |                |
| 1,1-Dichloroethene           | 6.84   | ug/L                          | 1.0 | 137  | 66        | 142                   | 4.2 | 20       |                |
| cis-1,2-Dichloroethene       | 5.24   | ug/L                          | 1.0 | 105  | 74        | 133                   | 0.0 | 20       |                |
| trans-1,2-Dichloroethene     | 6.48   | ug/L                          | 1.0 | 130  | 76        | 138                   | 6.4 | 20       |                |
| 1,2-Dichloropropane          | 4.96   | ug/L                          | 1.0 | 99   | 72        | 135                   | 0.8 | 20       |                |
| cis-1,3-Dichloropropene      | 3.66   | ug/L                          | 1.0 | 73   | 75        | 132                   | 18  | 20       | S              |
| trans-1,3-Dichloropropene    | 2.72   | ug/L                          | 1.0 | 54   | 77        | 145                   | 40  | 20       | SR             |
| Ethylbenzene                 | 5.24   | ug/L                          | 1.0 | 105  | 78        | 131                   | 0.8 | 20       |                |
| 2-Hexanone                   | 50.8   | ug/L                          | 20  | 102  | 72        | 131                   | 1.6 | 20       |                |
| Iodomethane                  | 6.96   | ug/L                          | 1.0 | 139  | 66        | 132                   | 1.7 | 20       | S              |
| Methyl ethyl ketone          | 47.6   | ug/L                          | 20  | 95   | 55        | 145                   | 1.7 | 20       |                |
| Methyl isobutyl ketone       | 49.2   | ug/L                          | 20  | 98   | 73        | 129                   | 1.6 | 20       |                |
| Methylene chloride           | 6.12   | ug/L                          | 1.0 | 122  | 73        | 126                   | 5.4 | 20       |                |
| Styrene                      | 5.04   | ug/L                          | 1.0 | 101  | 76        | 134                   | 1.6 | 20       |                |
| 1,1,1,2-Tetrachloroethane    | 5.36   | ug/L                          | 1.0 | 107  | 75        | 135                   | 0.7 | 20       |                |
| 1,1,2,2-Tetrachloroethane    | 5.48   | ug/L                          | 1.0 | 110  | 72        | 132                   | 3.7 | 20       |                |
| Tetrachloroethene            | 7.76   | ug/L                          | 1.0 | 107  | 78        | 137                   | 1.6 | 20       |                |
| Toluene                      | 5.28   | ug/L                          | 1.0 | 106  | 78        | 134                   | 2.3 | 20       |                |
| 1,1,1-Trichloroethane        | 5.68   | ug/L                          | 1.0 | 114  | 64        | 141                   | 0.0 | 20       |                |
| 1,1,2-Trichloroethane        | 5.16   | ug/L                          | 1.0 | 103  | 72        | 133                   | 2.3 | 20       |                |
| Trichloroethene              | 5.56   | ug/L                          | 1.0 | 107  | 75        | 138                   | 0.0 | 20       |                |
| Trichlorofluoromethane       | 6.16   | ug/L                          | 1.0 | 123  | 58        | 139                   | 0.6 | 20       |                |
| 1,2,3-Trichloropropane       | 6.00   | ug/L                          | 1.0 | 120  | 67        | 133                   | 0.7 | 20       |                |
| Vinyl acetate                | 3.28   | ug/L                          | 1.0 | 66   | 31        | 124                   | 28  | 20       | R              |
| Vinyl chloride               | 5.92   | ug/L                          | 1.0 | 118  | 66        | 140                   | 2.7 | 20       |                |
| m+p-Xylenes                  | 10.5   | ug/L                          | 1.0 | 105  | 78        | 133                   | 0.8 | 20       |                |
| o-Xylene                     | 5.20   | ug/L                          | 1.0 | 104  | 79        | 136                   | 1.6 | 20       |                |

### Qualifiers:

RL - Analyte reporting limit.

R - RPD exceeds advisory limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Barry Damschen

Report Date: 07/09/12

Project: Sanitation Inc. Closed Landfill

Work Order: B12062268

| Analyte | Result | Units | RL | %REC | Low Limit | High Limit | RPD | RPDLimit | Qual |
|---------|--------|-------|----|------|-----------|------------|-----|----------|------|
|---------|--------|-------|----|------|-----------|------------|-----|----------|------|

Method: SW8260B

Batch: R187779

Sample ID: B12062676-001Bmsd

Sample Matrix Spike Duplicate

Run: SV5972.1\_120702A

07/02/12 22:03

Surr: 1,2-Dichloroethane-d4

1.0 111 70 130

Surr: Dibromofluoromethane

1.0 114 77 126

Surr: p-Bromofluorobenzene

1.0 107 76 127

Surr: Toluene-d8

1.0 104 79 122

## Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



## Standard Reporting Procedures

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as -dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

## Workorder Receipt Checklist

Barry Damschen

B12062268

Login completed by: Randa Nees

Date Received: 6/26/2012

Reviewed by: BL2000\cadreau

Received by: jrj

Reviewed Date: 6/27/2012

Carrier Hand Del  
name:

|                                                                                                                                                             |                                         |                             |                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------|-------------------------------------------------|
| Shipping container/cooler in good condition?                                                                                                                | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| Custody seals intact on shipping container/cooler?                                                                                                          | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Custody seals intact on sample bottles?                                                                                                                     | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Chain of custody present?                                                                                                                                   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Chain of custody signed when relinquished and received?                                                                                                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Chain of custody agrees with sample labels?                                                                                                                 | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Samples in proper container/bottle?                                                                                                                         | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Sample containers intact?                                                                                                                                   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| Sufficient sample volume for indicated test?                                                                                                                | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |
| All samples received within holding time?<br>(Exclude analyses that are considered field parameters<br>such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.) | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |                                                 |

Container/Temp Blank temperature: 3.0°C On Ice/Temp. Blank

Water - VOA vials have zero headspace? Yes ☒ No ☐ No VOA vials submitted ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☐

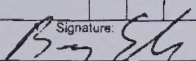
Contact and Corrective Action Comments:

None

**PLEASE PRINT (Provide as much information as possible.)**

|                                                                   |  |                                                                          |  |                                   |                                                                                             |
|-------------------------------------------------------------------|--|--------------------------------------------------------------------------|--|-----------------------------------|---------------------------------------------------------------------------------------------|
| Company Name:<br><b>BARRY DAMSCHEN Consulting</b>                 |  | Project Name, PWS, Permit, Etc.<br><b>SANITATION Inc closed landfill</b> |  | Sample Origin<br>State: <b>MT</b> | EP/State Compliance:<br>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Report Mail Address:<br><b>5531 YORK ROAD<br/>Helen, MT 59602</b> |  | Contact Name:<br><b>BARRY DAMSCHEN</b>                                   |  | Phone/Fax:<br><b>461-5003</b>     | Email:<br><b>Barry D.</b>                                                                   |
| Invoice Address:<br><b>Same as above</b>                          |  | Invoice Contact & Phone:<br><b>Same as above</b>                         |  | Purchase Order:                   | Quote/Bottle Order:                                                                         |

|                                                                                                                                                                                                                                                                                                                                                                    |  |  |                                                                                                                                |                    |        |   |  |  |  |  |  |  |  |                                           |                  |                                                                                              |                                                                                                                                                                          |                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--------------------------------------------------------------------------------------------------------------------------------|--------------------|--------|---|--|--|--|--|--|--|--|-------------------------------------------|------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| Special Report/Formats:<br><br><input type="checkbox"/> DW <input type="checkbox"/> EDD/EDT (Electronic Data)<br><input type="checkbox"/> POTW/WWTP      Format: _____<br><input checked="" type="checkbox"/> State: <b>MT</b> <input type="checkbox"/> LEVEL IV<br><input type="checkbox"/> Other: _____ <input type="checkbox"/> NELAC<br><b>DEQ Solid Waste</b> |  |  | Number of Containers<br>Sample Type: AWS/VBO/DW<br>Air Water/Solids/Solids<br>Vegetation Bioassay Other<br>DW - Drinking Water | ANALYSIS REQUESTED |        |   |  |  |  |  |  |  |  | SEE ATTACHED<br>Standard Turnaround (TAT) | R<br>U<br>S<br>H | Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page |                                                                                                                                                                          | Shipped by:<br><b>HAND</b><br>Cooler ID(s):<br><b>TEMP BLK</b> |
|                                                                                                                                                                                                                                                                                                                                                                    |  |  |                                                                                                                                |                    |        |   |  |  |  |  |  |  |  |                                           |                  | Comments:                                                                                    |                                                                                                                                                                          | Receipt Temp<br><b>3.0 °C</b>                                  |
| SAMPLE IDENTIFICATION<br>(Name, Location, Interval, etc.)                                                                                                                                                                                                                                                                                                          |  |  | Collection Date                                                                                                                | Collection Time    | MATRIX |   |  |  |  |  |  |  |  |                                           |                  | On Ice: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N                     |                                                                                                                                                                          |                                                                |
| 1 SIMW-2                                                                                                                                                                                                                                                                                                                                                           |  |  | 6-25-12                                                                                                                        | 1430               | 7W     | X |  |  |  |  |  |  |  |                                           |                  |                                                                                              | Custody Seal<br>On Bottle <input type="checkbox"/> Y <input checked="" type="checkbox"/> N<br>On Cooler <input type="checkbox"/> Y <input checked="" type="checkbox"/> N |                                                                |
| 2 SIMW-3                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                                                                                | 1500               | 7W     | X |  |  |  |  |  |  |  |                                           |                  |                                                                                              | Intact <input type="checkbox"/> Y <input checked="" type="checkbox"/> N                                                                                                  |                                                                |
| 3 SIMW-3D                                                                                                                                                                                                                                                                                                                                                          |  |  |                                                                                                                                | 1500               | 7W     | X |  |  |  |  |  |  |  |                                           |                  |                                                                                              | Signature Match <input type="checkbox"/> Y <input checked="" type="checkbox"/> N                                                                                         |                                                                |
| 4 SIMW-4                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                                                                                | 1545               | 7W     | X |  |  |  |  |  |  |  |                                           |                  |                                                                                              | \$12062268-001                                                                                                                                                           |                                                                |
| 5 TRIP BLANK                                                                                                                                                                                                                                                                                                                                                       |  |  |                                                                                                                                | -                  | 1W     | X |  |  |  |  |  |  |  |                                           |                  |                                                                                              | 002<br>003<br>004<br>005                                                                                                                                                 |                                                                |
| 6 TBC62012KK#CLOZES                                                                                                                                                                                                                                                                                                                                                |  |  |                                                                                                                                |                    |        |   |  |  |  |  |  |  |  |                                           |                  |                                                                                              |                                                                                                                                                                          |                                                                |
| 7                                                                                                                                                                                                                                                                                                                                                                  |  |  |                                                                                                                                |                    |        |   |  |  |  |  |  |  |  |                                           |                  |                                                                                              |                                                                                                                                                                          |                                                                |
| 8                                                                                                                                                                                                                                                                                                                                                                  |  |  |                                                                                                                                |                    |        |   |  |  |  |  |  |  |  |                                           |                  |                                                                                              |                                                                                                                                                                          |                                                                |
| 9                                                                                                                                                                                                                                                                                                                                                                  |  |  |                                                                                                                                |                    |        |   |  |  |  |  |  |  |  |                                           |                  |                                                                                              |                                                                                                                                                                          |                                                                |
| 10                                                                                                                                                                                                                                                                                                                                                                 |  |  |                                                                                                                                |                    |        |   |  |  |  |  |  |  |  |                                           |                  |                                                                                              |                                                                                                                                                                          |                                                                |

|                                      |                                                                       |  |                                                                                               |  |                        |  |                         |  |                                 |  |
|--------------------------------------|-----------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------|--|------------------------|--|-------------------------|--|---------------------------------|--|
| <b>Custody Record MUST be Signed</b> | Relinquished by (print): <b>Barry Damschen</b> Date/Time: <b>8:30</b> |  | Signature:  |  | Received by (print):   |  | Date/Time:              |  | Signature:                      |  |
|                                      | Relinquished by (print):                                              |  | Date/Time:                                                                                    |  | Signature:             |  | Received by (print):    |  | Date/Time:                      |  |
|                                      | Sample Disposal:                                                      |  | Return to Client:                                                                             |  | Lab Disposal: <b>X</b> |  | Received by Laboratory: |  | Date/Time: <b>6/26/12 8:30A</b> |  |
|                                      |                                                                       |  |                                                                                               |  |                        |  |                         |  |                                 |  |

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at [www.energylab.com](http://www.energylab.com) for additional information, downloadable fee schedule, forms, and links.









